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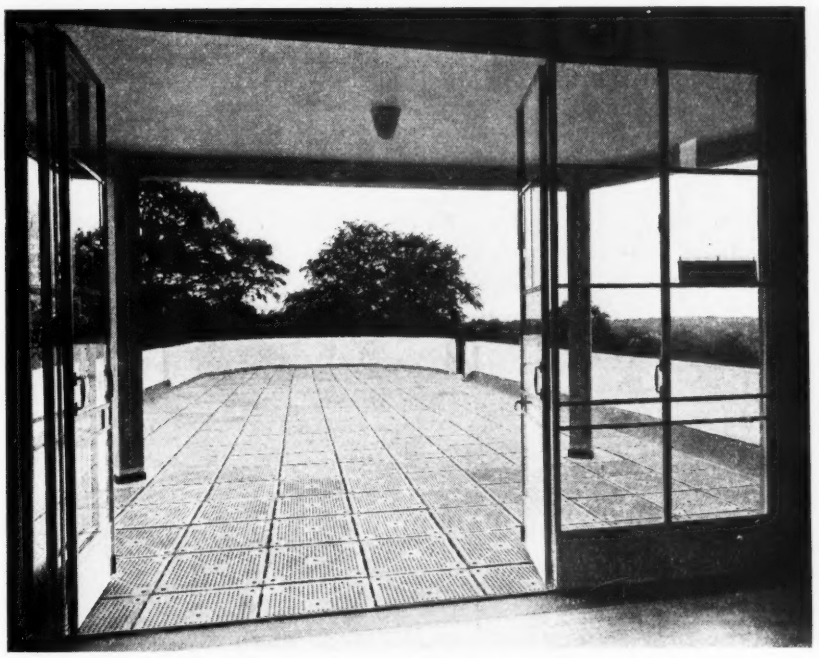


THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS :
Flat Roof of one of the Wards.

MR. CECIL BURNS, F.R.I.B.A., Architect.

(See page 507.)

MEETINGS

FRIDAY, *March* 15.

Institute of Iron and Steel. Professor R. Hay on "Slag Systems." At the Royal Technical College, Glasgow. 7.15 p.m.

Institution of Structural Engineers (*Midland Counties Branch*). Mr. H. E. Brooke-Bradley on "The Lay-out, Design and Construction of Aerodromes and Airports." At Nottingham. 7 p.m.

Institution of Civil Engineers. Mr. F. Faucutt on "Paints: their Formulation and Application." At the Institution of Engineers and Shipbuilders, Glasgow. 7.30 p.m.

Hampshire and Isle of Wight Architectural Association. Mr. P. Cutbush on "Increased Use of Veneers and Plywood and their effect on Modern Joinery." At the Technical College, Bournemouth.

Society of Chemical Industry (*Plastics Group*). Mr. M. B. Donald on "Use of Plastics in Chemical Works." At Burlington House, W.1. 8 p.m.

London Society. Mr. C. E. A. Bedwell on "The Inns of Court." 5 p.m.

Faculty of Architects and Surveyors (*Lancs and North-Western District Branch*). The Fourth Annual Dinner and Dance. At the Queen's Hotel, Piccadilly, Manchester. 7.45 p.m.

SATURDAY, *March* 16.

St. Paul's Ecclesiological Society. Visit to Dulwich College. Conductor, the Rev. R. P. Crabbe. 2.30 p.m.

Building Surveyors' Association. Mr. S. E. Studd on "Consideration of the recent Questionnaire on the Administration of a Building Surveyor's Department." At the University, Edmund-street, Birmingham. 2 p.m.

TUESDAY, *March* 19.

Institution of Civil Engineers. Messrs. F. G. Coales and C. H. Clarkson on "The Iskandar Bridge, Perak, Federated Malay States"; and Mr. F. W. Stephen on "The New Khedive Ismail Bridge, Cairo, Egypt." 6 p.m.

Architectural Association. Mr. Robert Atkinson on "Architectural Critics." 8 p.m.

London Society. 23rd Annual Meeting. At Lancaster House, St. James's, S.W.1. 4.45 p.m.

TUESDAY-SATURDAY, *March* 19-30.

Architectural Association. Exhibition Illustrating London Development. 10 a.m. to 10 p.m.

WEDNESDAY, *March* 20.

St. Paul's Ecclesiological Society. Mr. P. M. Johnston on "Wood Carvings and Stone Sculptures of Worcester Cathedral." At 66, Portland-place, W.1. 8 p.m.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "English Renaissance (1550-1900): Georgian Domestic Architecture." 6 p.m.

Birmingham and the Five Counties Architectural Association. Mr. S. Casson on "Sculpture."

Institution of Structural Engineers (*Midland Counties Branch, Junior Section*). Mr. V. H. Lawton on "The Detailing of Structural Steelwork." At the Star and Garter Hotel, Wolverhampton. 7 p.m.

THURSDAY, *March* 21.

Society of Antiquaries. Dr. F. H. Fairweather on "Colne Priory, Essex, and the Burials of the Earls of Oxford." 8.30 p.m.

Institution of Structural Engineers (*Yorkshire Branch*). Mr. R. H. Evans on "Stresses in the Steel Reinforcement of Concrete Structures." At the Hotel Metropole, Leeds. 7 p.m.

Architecture Club. Third Supper-Discussion on "Seaside Architecture." At 36, Bedford-square, W.C.1. 7.30 p.m.

FRIDAY, *March* 22.

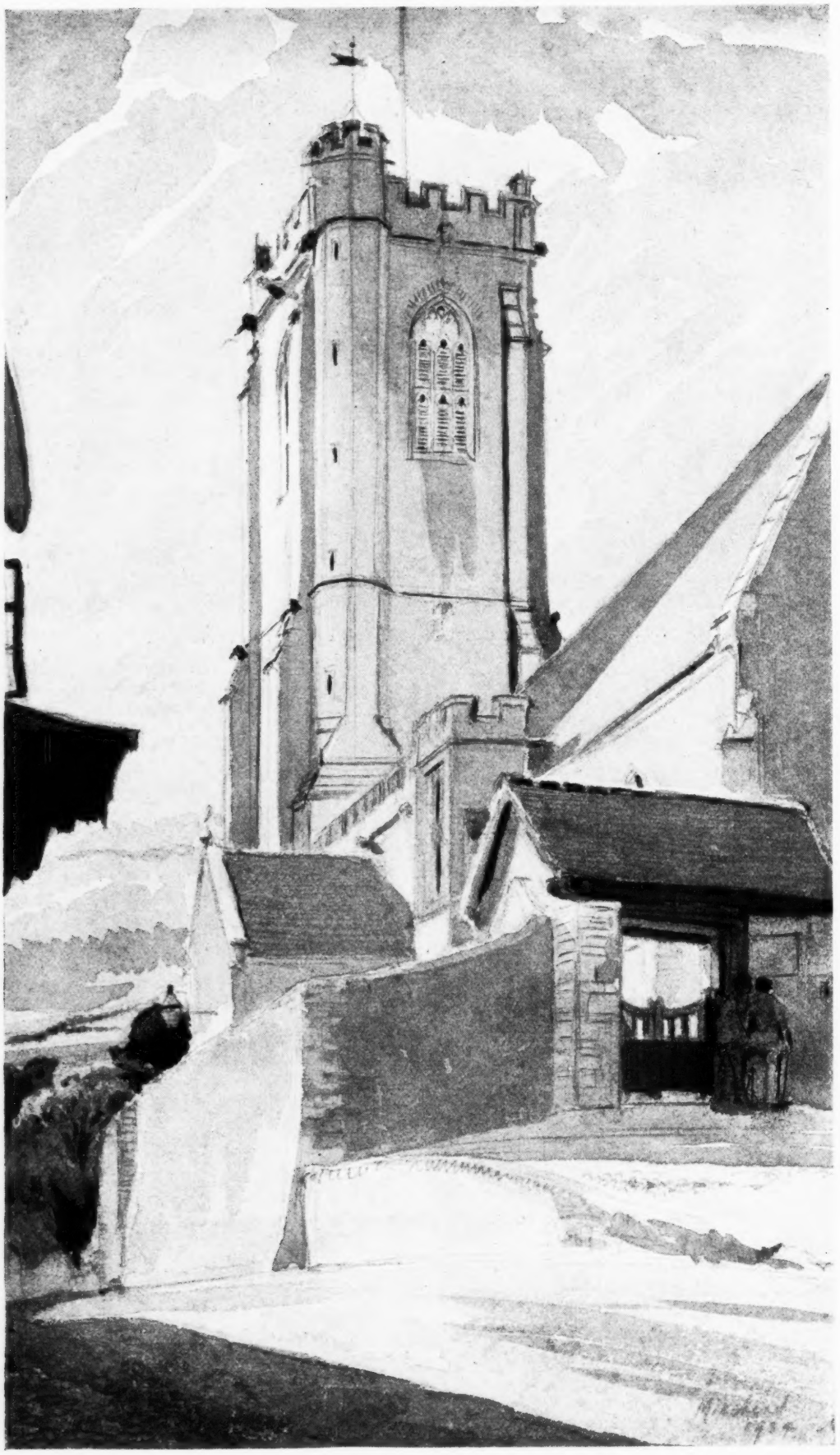
Institution of Sanitary Engineers. Mr. P. H. Wilson on "The Manufacture of Cast-Iron Pipes, with Special Reference to Prevention of Corrosion." At Caxton Hall, S.W.1. 6 p.m.

Norfolk and Norwich Association of Architects. Mr. A. W. Purchase on "The Use of Cement." At Curat House, Norwich. 5.30 p.m.

MONDAY, *March* 25.

Royal Institute of British Architects. Mr. H. M. Fletcher on "The Work of Messrs. Smith and Brewer." 8 p.m.

Royal Society of Arts. Dr. R. E. Stradling on "Research on the Testing of Building Materials—I." 8 p.m.



MINEHEAD CHURCH.

From a Water-colour drawing by PROFESSOR A. E. RICHARDSON, F.S.A.

MASS PRODUCTION

THE subject of mass production as applied to building has been to the fore for some years, and has been much debated since the Prince of Wales's comments on the subject in his speech at the R.I.B.A. Centenary Banquet. The subject is an extremely difficult one, and probably the more interesting on that account.

At the present time we are faced with a level of building costs which seems to have become more or less static under present methods of working. The demand for houses, however, cannot remain static while there is a steady increase in the population, and under normal growth there must always be a sensible pressure in this market. To add to this normal condition, the public conscience has been awakened to the scandal of the slums, and there are large built-up areas which the community has resolved to wipe out as beyond remedy, and alternative accommodation to be created, not merely in equal measure, but increased to conform with those minimum standards of comfort which the times consider the least we can do for our least fortunate fellow-beings.

There is a suggestion that traditional methods can no longer be depended upon to satisfy abnormal needs. The alternative methods to be adopted have not yet been found, for in spite of the new means of simplifying and speeding up buildings on a large scale, the elements of the small building remain very little different from those that have ruled for the last two hundred years, namely, brick walls, wooden floors, and roofs covered with tiles. The mere fact that these methods have been used for so long must not be taken immediately as a sign of inertia, for change for the sake of change has no inherent virtue, and the continuance of a building method may to some extent be taken as a proof of its merit. If we were to assume on this account that the normal expansion of building activity should continue to be met by old and tried methods, there would be a very strong argument in support of this point of view, and we cannot even cast it aside in relation to the newer and more pressing problem without very good reason.

Mass production has been already successfully applied to a number of industries, of which the motor-car industry is, perhaps, the most striking example. Since the War, the light motor-car has been produced at a selling price below pre-War levels, despite considerable increases in the cost of labour and materials; and the success has been achieved by recognising the economic fact that the more similar things that can be turned out by machinery, the lower will be their cost of production. There is a strong temptation to take this model as proof positive that our building methods are on the wrong lines. But there is no greater mistake to make than to adopt an apparent analogy between things which are inherently different in nature and purpose, and it has to be admitted that the building and the motor-car have little in common, and serve very different social purposes. The house is the symbol of permanence, and to regard it as temporary is to take the first step towards creating yet another problem to confuse the issue. The motor-car, on the other hand, has a very limited life, and the responsibility of the designer is perhaps less stringent than must be that of the designer of houses. The market conditions in the two cases, also, are very different, because the demand is created by supply at low cost, whereas in the other, the demand already exists and exerts its natural pressure with no need for a stimulus; in fact, if the market were stimulated artificially, more harm would be done than good. The aim of the housing campaign is defined and definite, and consists merely in a plan to provide one good house per family.

The idea, then, that houses can be turned out of the factory as pre-fabricated units in a limited number of similar varieties, does not bear very much examination. On the other hand, the fact that we exclude from our minds this conception of machine-made houses, does not in itself remove the possibilities of ideas in mass production. There are a number of units in a house which already come under this heading. Such things as sanitary fittings, fireplaces and the like are already turned out by the machine, and assume a low level of cost on that account. The minds of those who have turned to the possibilities of mass production are applied more to an extension of this idea than to any idea of the complete factory-made house. We believe there is a wide field open for this development within the building industry, and His Royal Highness appealed to the right class of individual in addressing architects upon the subject, since the use of similar units can only become of service to house production if ideas of planning are simplified and co-ordinated.

We have in mind such things as an agreed standard floor span for the room units of a typical working-class dwelling, so that precious time might be saved by applying a ready-made article to a fixed unit. The idea of pre-fabricated door units, ready hung and complete with lock and furniture, is no new one, but we believe it would have stood a better chance of success had architects agreed together upon the best form which such units could take, and had resolved to put away personal fads and predilections which may have stood in the way of their adoption. The steel window industry has already gone far along the road to successful mass production, and something has been done already to apply to these necessary and important features attachments which simplify the satisfactory building in of all such units. We have in mind measures which will automatically solve those problems of weather protection to jambs and lintel which add to the expense and time of building. We have no doubt that there are many more things which could be planned ahead on lines such as these, to simplify building and speed up its process without suffering in quality; and along these lines the architectural profession may see one important task for the future in which a quiet revolution of method might come about without any violent shock to habit.

In this question of mass production there is one thing of which the typical Englishman is suspicious and which he will resist to the last moment. That is a loss of individuality. The Englishman is pre-eminently a home lover, and there can be no warmth of affection for something which has appeared miraculously out of a factory and which all his fellow-beings possess. He likes to feel that there is something different at least in the estate upon which he lives, and, if possible, in the particular house upon that estate which he occupies. Such aspirations are not denied by the idea of mass production if this principle is followed along the lines we have indicated. The complete factory-made house has already been tried, and, we believe, proved a failure. The factory-made product used in the assembly of houses has been proved a success so far as this idea has been followed. We see no reason why it should not be so extended as to prove not only suitable to the national characteristics, but so as to solve, once and for all, the problems which have arisen mainly out of arrears of effort, which, when once overtaken, will leave us with the accustomed task of keeping pace with the normal growth of the community.

On the subject of the mass production of buildings, with special reference to housing, Mr. Alfred C. Bossom, M.P., has written an interesting letter to *The Times*, and some extracts from this are given on page 490.

NOTES

Standardisation in the Building Industry.

THE Building Industries' National Council, we are informed, have come to the conclusion that a comprehensive policy of standardisation, initiated and supported by representative organisations, can do much to further the best interests of industry and of the community as a whole. The Council has accepted the recommendations of the Imperial Conference that there should be one national standardising body and has, in consequence, been in close co-operation with the British Standards Institution as the national organisation responsible for standardisation, with a view to drawing up an agreed programme, not only to accelerate the work in hand, but also to extend it. At a recent meeting of the Building Divisional Council of the British Standards Institution, upon which the Building Industries' National Council is represented, unanimous approval was given to a scheme which will result in smoothing out preliminary difficulties in the initiation of building standards and give considerable impetus to the work. Under this scheme the National Council will co-operate in the detailed work at present in hand and will ensure the practical utility and early acceptance of any standardisation undertaken by securing the support of the building industry at as early a date as possible. The National Council will also prepare proposals for standardisation, as and when they consider the time has arrived for a British Standard Specification for any particular subject to be prepared and issued. This is an excellent example of the valuable work that can be done by a body which represents, and on which is represented, all shades of industrial opinion.

Revision of B.S. Specifications.

IN pursuance of the policy thus outlined, suggestions put forward in a number of reports on housing have been carefully reviewed by the National Council in collaboration with the British Standards Institution, and it is anticipated that the programme of standardisation being carried out by the Institution in the near future will be considerably extended as it affects the building industry. A survey of the work already carried out by the Institution, as well as of work at present in hand, is being made, and as soon as this is available, the National Council will indicate what further materials and components, formulated in order of urgency, need to be standardised and these will be dealt with as quickly as possible. In addition, the National Council are about to review the existing British Standard Specifications concerning the building industry, particularly those of a dimensional character, with a view to seeing how far it may be possible to standardise assembled units, such as plumbing units, for the component parts of which British Standard Specifications already exist. Such proposals for standardised assemblies will then be submitted to the Institution with a view to their issue along the usual lines as British Standards.

A Common Policy of Standardisation.

THE above-mentioned arrangement, we understand, is in no way intended to relieve the responsibility of the members of the Building Divisional Council in their capacity as representatives of such organisations as the Royal Institute of British Architects, the Chartered Surveyors' Institution, the National Federation of Building Trades' Operatives, the National Federation of Building Trades Employers, Building Materials Manufacturers' and Suppliers' Committee, etc. Its sole purpose is to implement a common policy of standardisation for the building industry as a whole, to which it will be known that the organisations represented by members of the Building Divisional Council have, by virtue of their position as associated bodies of the Building Industries National Council, given their approval. Everyone, we believe, will agree that this active co-operation between the National Council and the British Standards Institution in securing a greater measure of useful standardisation is bound to be of considerable advantage to the building industry and, indeed, to all concerned with building and building problems.

THE "RED LION," MARTLESHAM, SUFFOLK.

From a water-colour Drawing by MR. A. C. FARE, R.W.A., A.R.I.B.A.

Architects as Speculative Builders.

IN reference to the suggestion which is made from time to time on the question of architects giving the public better small-house design by building speculatively "on their own," there are more difficulties than are apparent. An architect who has tried in a very small way to build better small-type houses in this way, sets forth some of the objections. "Architects as a whole," he says, "will agree that most council houses now being erected in thousands by local authorities are good in plan, and their elevations are generally well-proportioned and simple, without the fussy over-decoration of some of the speculative builders. Naturally, then, architects would prefer the council-house type of architecture to that perpetrated by the majority of speculative builders. The public, however (and because they purchase the houses, their wishes have to be considered), seem to hate the sight of anything that resembles a council house. I have taken many of my friends to view builders' fussy, sham-gabled houses, and then to well-designed architects' houses having well-proportioned windows, and then to council houses. Almost everyone of those friends much preferred the speculative builders' houses. Then comes the matter of cost. Architects will put in good materials, selected with care; they must charge fees for their supervision, and even by obtaining competitive prices they cannot produce houses so cheaply as the mass-production builders; and it is only by comparing values that it becomes apparent that the architect-house is the most valuable. The public, or at any rate about nineteen buyers out of twenty, will 'go for' price, and the easiest purchase terms. Therefore, the architect is 'left in the cold,' even though he gives the best value for money." Of course, there are some builders who have the collaboration of architects and do give sound value in the houses they sell, but our correspondent, as an architect, has "seen large numbers of building estates all over the country,

A SUFFOLK WINDMILL.

and, to use an expression freely used about one big building firm's houses (which were selling as fast as they could be built) they were 'a hammer and saw job.' What these houses will be like in twenty years' time it is difficult to say."

"The Architecture of Healing."

THIS is the title of the Hospital Planning Section at the twenty-fifth Annual Professional Nursing and Midwifery Public Health and Hospital Exhibition and Conference, now being held at the New Horticultural Hall, Westminster. On the screen are plans and working drawings of some of the most up-to-date hospitals of the day, embodying the most recent ideas of medical science. The drawings shown are representative of the work of architects who are specialists in modern hospital planning, and represent different types and sizes of hospitals. Amongst some admirable schemes on view, many of which have been previously published in our pages, are the Birmingham Hospital Centre, now in course of erection (Messrs. Lanchester & Lodge, architects); the Tuberculosis Hospital, Sully, Cardiff (Messrs. Pite, Son & Fairweather, architects); the Liverpool Maternity Hospital (Mr. Gilbert Fraser, architect); the Christie Hospital, Holt Radium Institute (Messrs. H. S. Fairhurst & Son, architects); The Children's Hospital, Great Ormond-street (Messrs. Stanley Hall, Easton & Robertson, architects); Lord Mayor Treloar Cripples' Hospital, Alton (Mr. Henry C. Smart, architect); Southend General Hospital (Adams, Holden & Pearson, architects); and others. The group exhibit affords the opportunity of studying the latest hospital planning and design, and the exhibition includes a large collection of hospital fitments, etc. Lectures will be delivered up to the closing date, March 15.

Painting, Slating, etc. Specifications

A JOINT Committee of the Manchester Society of Architects, and the Manchester, Salford and District Building Trades Employers' Association, has been formed with the object of conducting a careful study of building materials, with particular regard to the method of specifying them, as it is considered that many building specifications fall short of that accuracy and clearness of description which is necessary to enable contractors, when tendering, to understand clearly what is required by the architect, as any ambiguity occasions difficulties to contractors when tendering. Most architects carefully study materials from the point of view of the part which they wish them to play in a building and the effect which they wish to obtain from them in their design, whereas employers have special knowledge and experience in the handling and use of materials and the forms in which they can most easily and economically be obtained, and to bring these two points of view together on a joint consultative board is sure to contribute very materially to the elucidation of the whole subject. The aim appears to be excellent, as these little reports (Nos. 4 and 5, price 1s. each) show, and we are glad to know that it is intended to proceed from this to the study of other materials and to issue other reports.

Press Censorship.

A CONTEMPORARY has taken the novel line of refusing to illustrate Mr. Epstein's work, "Ecce Homo," on the ground that the method of representation is repugnant to the Christian conception of Christ. We do not want to enter into the question of the propriety or otherwise of this particular work beyond saying that we are sure that it was not executed in any spirit of levity or blasphemy, as appears to have been suggested. Some of the reasons given by readers are hardly encouraging. We are told, for example, that tradition has handed down an accepted type for the portrayal of Christ. Many, including eminent churchmen, hold that the effeminate type has done untold harm by ignoring the power and presenting only a mawkish humility. In Michael Angelo's "Last Judgment" we are shown power personified, utterly at variance with the "accepted type." We view with some trepidation an art censorship exercised by the average of the readers of the daily newspaper.

The R.A. Exhibition of Industrial Art.

MANY, if not all, of those who listened to the papers on the recent Royal Academy Exhibition of British Art in Industry, given at the R.I.B.A. on Monday evening, must have felt that they were taking part in obituary proceedings. It was obvious that the papers should have been delivered while the exhibition was open, and if that had been possible they would assuredly have aroused a good deal of public interest and controversy. As it was, they came as an anti-climax. Now that the exhibition is closed and visual memory is fading, there is little point in publishing Mr. John de la Valette's lengthy, and in part subtly critical, review of the various sections of the exhibition, so we confine our report of his paper mainly to some of his rather provocative remarks on modern architectural practice, which we note the meeting carefully refrained from discussing, though discussion they certainly merit. Mr. Spedan Lewis obviously came "to bury Cæsar, not to praise him." His paper consisted almost entirely of adverse criticism. In regarding the exhibition simply from the point of view of the retail trader, it may be that Mr. Lewis had missed its principal purpose which, according to Sir William Llewellyn, P.R.A., who made a spirited retort, was to bring British artists more in touch with British manufacturers, in which aim it seems to have achieved some measure of success. Few exhibitions of recent years have aroused so much hostile criticism as this joint effort of the Royal Academy and the Royal Society of Arts. We can only hope that the experience gained may be turned to profitable account on some future occasion.

CHURCH AND COTTAGE, CHIDDINGFOLD, SURREY.

GENERAL NEWS

Professional Announcement.

Mr. Eric W. Adams, P.A.S.I., chartered quantity surveyor, asks us to state that he is continuing in practice at 58, King Edward-street, Hull.

Change of Address.

On and after Monday, March 25, the office of the District Surveyor for Lewisham East will be No. 3, High-street, Lewisham, S.E.13. The telephone number will remain the same : Lee Green 1507.

An Appointment.

Harrow U.D.C. has appointed Mr. H. W. Rackham, the present Deputy Engineer and Surveyor, Engineer and Surveyor to the Council. Applications are to be invited for the appointment of Deputy Engineer and Surveyor at a commencing salary of £600.

Employment in Industry.

A decrease of 39,910 in the last month in the number of unemployed and an increase of 28,000 in the number of employed is reported by the Ministry of Labour. Of the former figure, 29,508 persons were accounted for by the building industry, and 1,522 by public works contracting.

A New Church, Ashburton, Devon.

Mr. Edward Walters (of Messrs. F. A. Walters and Son, 28, Great Ormond-street, W.C.1), has prepared plans for the erection of a new church at Ashburton, on the fringe of Dartmoor. The church will be a commemoration of the silver jubilee of Dom John Stephan, the parish priest. Building is to commence immediately, a contract having been placed with Messrs. Mussellwhite and Son, Ltd., of Basingstoke.

A Paris Exposition, 1937.

Plans are under way for an " Exposition " in Paris in 1937. A preliminary competition has just been decided for schemes to " camouflage " the Trocadero and to transform its interior; the laying-out of the Place du Trocadero; the establishment of foreign sections on the banks of the Seine; and the creation of an exhibition hall in front of the Eiffel Tower. Three hundred and three architects entered designs, of which a selection is given in " La Construction Moderne " for March 10. The scheme will, in effect, link the Trocadero with the Eiffel Tower, preserving the axial line of the Pont d'Iéna.

A New Church, Eastbourne.

Plans for a church and vicarage, to be known as St. Elizabeth's, Eastbourne, have been prepared by Messrs. P. D. Stonham, Son and Fenning, FF.R.I.B.A., of Eastbourne, in consultation with Messrs. Tatchell and Wilson, FF.R.I.B.A., 32, Strand, W.C.2. Mr. S. C. Addison is quantity surveyor. The contract has been placed with Messrs. Mark Martin and Sons, of Eastbourne. A feature of the church will be the omission of an east window, its place being taken by life-size mural paintings on three sides of the sanctuary, designed by Professor E. W. Tristram.

Appointments Vacant.

Isle of Man Development Board require a resident engineer and surveyor, to deal with a town planning scheme under the 1934 Act and to act under the Board's consultants, Messrs. T. H. Mawson and Son, of Lancaster and London. Salary £500, with car allowance. Applicants must be members of the Town Planning Institute. Applications (on forms from Mr. W. F. Cringle, Secretary, Government Office, Isle of Man) by March 29.

Dursley R.D.C. invite applications from architects qualified to plan and prepare drawings for a scheme of 200 houses. The appointed person will be required to reside in the area and devote the whole of his time to the service of the council. Applications, stating salary required, to Mr. F. J. Smart, clerk, Institution, Dursley, Gloucestershire, by March 21.

Walthamstow B.C. invite applications for a temporary building foreman in the Engineer's and Surveyor's Department. Salary, £6.

Blackpool C.B. require a temporary architectural assistant at £6 per week. Applications (from candidates experienced in elementary school planning) to Borough Surveyor, Municipal Buildings, Blackpool, by March 23.

Derby T.C. invite applications for post of architectural assistant. Commencing salary, £250. Preference to R.I.B.A. members. Applications, by March 28, to Mr. C. H. Aslin, F.R.I.B.A., Borough Architect, Gower-street.

Dewsbury C.B. invite applications for post of temporary architectural assistant. Salary, £250. Preference to candidates who have passed R.I.B.A. qualifying examinations. Applications by March 25, to Mr. Holland Booth, Clerk, Town Hall.

MASS PRODUCTION IN BUILDING

In a letter to *The Times*, Mr. A. C. Bossom, M.P., F.R.I.B.A., states a case for applying the methods and principles of mass production to housing. As an example of what these methods have achieved in other industries, the case of the Austin Motor Company is quoted. " Sir Herbert Austin," writes Mr. Bossom, " has kindly supplied me with some facts and figures relating to his own firm that are of compelling significance. Thirteen years ago it took 55 men (in terms of one week) to manufacture an Austin car. To-day on the same basis it takes eight. Thirteen years ago, if the cost of each Austin car to the public were put at an index figure of 100, the cost to-day would be 21. If the same figure of 100 represented 13 years ago the sums disbursed by the company in wages and salaries, the corresponding figure to-day would be 634. Where one car was turned out at the Northfield works 13 years ago, 26 are being turned out to-day. Where the company employed 3,197 men in 1922, it was employing 19,394 in December of last year, and is employing even more at this moment. . . .

" Can the policies and processes that have produced these remarkable results be applied to the building industry? Can they, especially, be brought to bear upon the vast building enterprise inaugurated by the National Government's campaign against slums and overcrowding? My emphatic answer is that they can, should be, and, I will add, must be—unless we are prepared to see a great conception wastefully mishandled and many millions (I should say at least 10 per cent. of whatever the scheme is going to cost) not so much squandered as literally, and to the benefit of nobody, thrown into the gutter."

After giving some details of the manner in which building is conducted in Canada and the United States, Mr. Bossom continues : " I should not say that the British building industry is 30 years behind the times. But part of it certainly is—and this in spite of the fact that we have architects, contractors and operatives who individually are as good as, if not better than, any in the world. The reason why we waste £25,000,000 to £30,000,000 a year on our annual national building programme is that the building industry has very largely omitted to master the secrets of organisation and of operation that Sir Herbert Austin has learned and applied in his own sphere of manufacturing activity.

" That omission is not altogether its own fault. . . . It is the most over-officialised and manacled of all our national undertakings, the sport of some 1,700 local authorities, and condemned to operate under a series of codes that have no relation to one another except that nearly all are obstructive and painfully inelastic. The Government's housing programme gives the Minister of Health a unique opportunity to restore to the British building industry what it most needs—freedom and a nation-wide up-to-date charter under which to work. It will be little less than calamitous if he allows the chance to escape him."

COMPETITION NEWS

Proposed Municipal Office Extensions, Acton.

Acton Sub (Extension of Municipal Offices) Committee recommend the T.C. to rescind the resolution passed on January 15, that the Council put out to competition by architects plans for the erection of a new building on the whole of the vacant land adjoining the municipal offices. They recommend that the Council appoint the Borough Engineer (Mr. W. G. Cross) as architect and the employment of a consulting architect to collaborate with the Borough Engineer.

The reason, according to the committee's report, is that in a scheme costing £80,000 the assessor's fees and expenses, premium awards to three competitors and the selected architect's fees would amount approximately to 7 per cent., in addition to which there would be printing, advertising and other incidental expenses. In the meantime, the Borough Engineer is to make inquiries with a view to suggesting the name of a suitable consulting architect.

New Civic Headquarters, West Hartlepool.

West Hartlepool Town Council is recommended to agree to the erection of a new civic headquarters on the playing field opposite the War Memorial. It is proposed to draw up plans for a complete new municipal building that will house everyone at present in the Church-square buildings, and also the departments now scattered about in different parts of the town. The proposal also mentions the erection on the same site of a new Town Hall, and it is suggested that designs should be invited from architects, with prizes of 100 and 50 guineas for the best two plans.

Lennard's Shop Front Competition.

Members of the Royal Institute of British Architects and of its allied societies must not take part in the competition for shop front designs for Messrs. Lennards, Ltd, because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

Proposed Town Hall, Teignmouth.

Sketch plans have been submitted to the Council providing for the erection of a new Town Hall. It is proposed to hold an architectural competition for the best design.

Designs for Civic Centre, Salford.

A civic centre competition, confined to past and present students at the Salford Royal Technical College, was recently organised by Councillor Peter Ashcroft, chairman of the Salford Building and Development Committee. The competition was started before the city council rejected the recommendation of a special committee that the existing Town Hall should be extended, and that Bexley-square should remain the civic centre. Entrants were required to submit plans for a new Town Hall and municipal buildings, and to suggest a site which had some relation to the general planning of the city and future developments. Ten sets of plans were adjudicated by Mr. H. Rhodes, headmaster of the Salford School of Art, and Mr. H. H. Chapham, head of the building and civil engineering department at the Technical College. The first prize of £25 has been awarded to Mr V. I. Tomlinson, a day school teacher in the city, and who lives in Ormonde-avenue, Pendleton; the second prize of £15 was given to Mr. H. Bennett, A.R.I.B.A., of Leeds; and the third prize of £10 to Mr. J. A. Dargie, of Chapel-street, Salford, a student in the building department at the college.

CURRENT COMPETITIONS

	Particulars published in "Builder."	Sending in date
Cemetery chapel and buildings, Gloucester. Competition confined to Wessex Society of Architects. Mr. Edward Maufe, F.R.I.B.A., assessor. Premiums: 125 gns. and 100 gns. Plans to Mr. C. J. Scudmore, 21, Eastgate-street, Gloucester...	Jan. 4	March 27
Monument in Cornish granite, for Cornish Quarry Masters' Assn. Prize, £50. Jury of assessors	Feb. 1	April 8

CORRESPONDENCE

Planning and Research for National Development.

SIR,—Professor Abercrombie's letter in your issue of March 1, referring to the new School of Planning and Research for National Development, recently founded by the Architectural Association, possibly expresses a slight misunderstanding which may exist in the minds of many of your readers.

Some town planning has for many years been included as an integral part of the Architectural School's course; but the scope of the subject has never made the foundation of a separate section necessary. Further, the Association has always considered the excellent Departments of Civic Design attached to the Architectural Schools of Liverpool and London Universities as meetng very adequately the requirement for training in the subject. Any action on the part of the Association in this direction would, therefore, have been redundant.

It must, however, be stressed that the new school is not intended to teach town or even country planning, as recognised at present. It has long been one of our national failings to consider the part before the whole. Even a very extensive regional scheme does not meet the need for large-scale planning so urgently felt of recent years by the great industrialists of this country. The Architectural Association, recognising that the principles of planning must eventually be extended to the widest field, in order to ensure perfect co-ordination of sections of the nation, has, with the help of the Advisory Board, founded the School of Planning and Research for National Development to provide training of the necessarily wider scope.

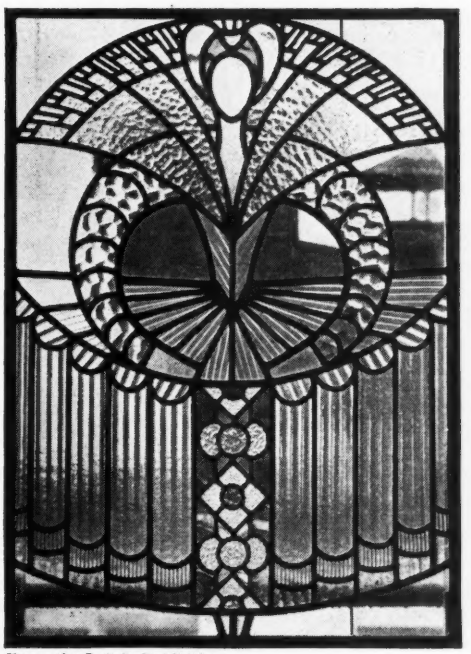
The school has aroused very wide interest, not only among those who hope to benefit by following its courses of study, but also among men prominent in political, economical and industrial circles. This would seem to confirm the impression that there has existed for some time a very general feeling that there is a need for the establishment of a school such as has now been founded. The Architectural Association, recognising the great opportunities open, decided that a school of such importance could not function as a subsidiary department, but should be entirely free to develop its appropriate policy. The Association has therefore provided ample premises at No. 7, Bedford-square, to which address the School is now in the process of moving.

E. A. A. ROWSE,
Principal.

36, Bedford-square, W.C.1.

The Housing Bill.

In the course of a long letter on the new Housing Bill, Mr. R. W. Jennings, of Bristol, after criticising its decrowding provisions,



From the L.C.C. Exhibition.
DECORATIVE GLASS PANEL
By MR. S. HAMILTON.

writes as follows :—"The Bill is likely to establish a bad principle if larger subsidies are granted for flats than are granted on houses, as it would tend to increase the congestion of the cities by encouraging people to live there instead of in the suburbs or in the country. If subsidies of some kind must be given—although I maintain there is no need of any such now—then a larger subsidy should be granted to the private enterprise builder who will draw persons out from the cities. Why should they not be in the form of a reduction of transport charges to the suburbs to draw people out into the fresh air, instead of offering the subsidies on flats to make the towns more congested?

"Since subsidies to municipalities, apart from slum clearance, have been withdrawn, and removed unfair competition against private enterprise, 300,000 houses, the largest number ever erected in one year in the history of the nation, have been built. All the houses necessary, apart from slum clearance, could be erected by private enterprise by March 31, 1938, provided no new unfair subsidised competition of local authorities as recommended in the Bill is passed."

L.C.C. ART SCHOOLS AND INDUSTRY EXHIBITION

AT the County Hall, an exhibition of selected works from the London Art Schools is now on view. In the foreword to the catalogue of the exhibits we read that the aim of the exhibition is rather to show how high a standard of attainment can be reached by the student. It is a pleasure to state that, without doubt, the work in all sections reaches a high level. It is displayed simply and effectively, and in no case does the setting dominate the exhibit. At the Royal Academy exhibition, elaboration of setting was much in evidence, and this should not be necessary. Mr. F. S. Manner, the designer, is to be congratulated on the lay-out of the exhibition. The Furniture Section has some excellent examples. No. 31, double bed, by Mr. H. T. Chester, is admirable; it is in walnut veneer, the lines being distinctly pleasing, and the figuring of the veneer is not too pronounced, but restful and pleasant in colour. No. 13, walnut chair, by Mr. J. A. Knott, and No. 46, walnut and other wood bookcase, by Mr. H. Lusher, are both worthy of high commendation, as are many other exhibits in this section.

Pottery is strongly represented, and in shape, pattern, glaze, colour and decoration is excellent. No. 822, jar, by Mr. J. D. College, is highly satisfactory in richness of colour, shape and glaze. Textiles are also satisfactory; the pattern design is not too large in scale, which is too often the case. The colourings are also in good taste. The stone carving exhibits have a simplicity and boldness of execution which suggests their suitability for architectural decoration, and they are carved with a medium technique. No. 312, "Mother and Child," in Roman stone, by Mr. Tamburrini, is a good example, both in composition and execution. Attention is drawn to No. 453, "Decorative glazing for a fashion shop," designed for execution in coloured glass, not stained glass, and relying on the design and leading for its effects. It is the ingenuity of the designers in using the rolled glasses, including the reeded and fluted glasses, to give a decorative effect and to represent a conventionalised subject, that raises these panels above the usual front-door panels of the suburban villa. It is claimed that these can be made from 5s. to 7s. 6d. per foot exclusive of design. If this is so, there should be a demand for domestic and shop uses. Silverware, posters, domestic pottery printing, and fashion design all reach a high level, and make the exhibition worthy of a visit. It remains open until March 16.

HENRY FLORENCE BURSARY

The Henry L. Florence Bursary, value £350, has just been awarded by the Royal Institute of British Architects to Mr. W. G. Holford, Senior Lecturer in the Liverpool School of Architecture. This is the most valuable of R.I.B.A. prizes. It was established in 1933. Its general object is to promote the study of the Greek and Hellenistic architecture of the Mediterranean basin, preference being given to the eastern half of the Mediterranean. Mr. Holford came to the Liverpool School of Architecture from South Africa, where he received his initial professional education in Johannesburg. He took the Degree course in the Liverpool School, graduating with First Class Honours in 1930. In the fourth year of his course he was awarded the scholarship of the Society of Arts and Sciences of America. Under the terms of this scholarship he travelled in the United States and obtained further professional experience in New York. Amongst the other prizes which he won during his course in the Liverpool School were the Lord Waring Travelling Scholarship in Decoration and the Rome Scholarship in Architecture. His work in the British School at Rome was recommended as of exceptional merit by the Rome Faculty in Architecture, and his tenure of the scholarship was extended to a third year, so that he might complete his study of Italian town plans and piazzas. On his return to England in 1933 he was appointed Senior Lecturer in the Liverpool School of Architecture.

From the L.C.C. Exhibition.
DECORATIVE GLASS PANEL.
By MR. W. R. PEARSE.

From the L.C.C. Exhibition.
DECORATIVE GLASS PANEL.
By MR. G. TOOLY.

THE R.A. EXHIBITION OF BRITISH ART IN INDUSTRY.

THE Royal Academy Exhibition of British Art in Industry, which closed last week, was the subject of two papers read at a meeting of the R.I.B.A. last Monday evening, when the chair was occupied by Mr. W. H. Ansell, Vice-President. The first paper was by Mr. John de la Valette, the organiser of the Exhibition, and the second by Mr. J. Spedan Lewis.

Architects and the Exhibition.

Mr. John de la Valette, in the course of his paper on Architects and the Exhibition, explained that one of the fundamental principles laid down by the executive committee for the Exhibition was that neither in the selection of the exhibits nor in their presentation should the views of any narrow clique or school be allowed to predominate. It was realised that we lived in a time of transition in which no particular school of thought could be said to have crystallised into such a perfect artistic expression of its ideals that it should be allowed to be standardised at the expense of the other trends which were struggling towards the same goal.

It was along this line of thought that the decision was reached not to entrust any single architect with the arrangement of the Exhibition as a whole, but to invite a number of eminent men differing in outlook, to concentrate each upon a specific part of the whole problem, and to work out, in close consultation with the trades concerned, what seemed to them the best method of arranging and presenting the exhibits within their section.

Thus to each of the advisory committees, composed mainly of manufacturers, an architect or a decorator was attached whose task it was to study the aims of the industries concerned, and to find the best methods for placing these before the public. It was for these reasons that the three great architects who formed part of the executive committee—Sir Giles Gilbert Scott, Sir Edwin Lutyens and Mr. Arthur Davis—refrained from imposing their personal views on their colleagues, although as members of the Planning Sub-Committee Sir Edwin and Mr. Davis contributed materially towards maintaining the necessary cohesion between the arrangements in different sections. The lecturer then dealt with the various sections of the Exhibition in detail, and in his concluding remarks referred to certain thoughts and questions which had arisen in his mind at various times during the past 15 years, and which had become focused on certain definite points during the past 25 months. He had, he said, come to ask himself repeatedly what was the exact function which the architect performed in the social structure under present-day conditions, and whether, under those conditions, it could still continue to be what it had been in the past. In short, was the modern architect still a master builder? Was it possible for him to be one in the sense which that word has had in the past?

One great difference which, it struck him, existed between the methods of the master builders of the European Middle Ages, or the great periods of India and the East, and our contemporary builders of great works was the lack of freedom in the execution of the details which was left to the craftsmen to-day. He thought there were two causes for that: the first and most important was that, he was afraid, the architect had, to some extent, lost his grip of all the details of the building processes which the master builder so fully possessed. The master builder's personal knowledge of all the methods and materials employed on his work was far greater than that of present-day architects, who had to share control with a large array of engineers and other technicians, the full details of whose work were by their very nature somewhat unfamiliar to the architect.

The modern architect had ceased to have that intimate knowledge of the building crafts which his predecessors had, and which enabled them to judge the anticipated results of each individual craftsman's work sufficiently to dispense with indicating more than its general outline. The modern architect, he regretted to find, talked a great deal about materials and the methods of using them; but, in fact, he thought in terms of paper and pencil and did not feel happy until he had reduced even the most minute details of a whole structure to the narrowing terms of an architectural drawing.

He could not help feeling that the modern architect had, on the one hand, been partly superseded by engineers and technicians, and, on the other, had lost his intimate working touch with craftsmen and manufacturers. As a result he no longer felt confident that he could completely control their contributions to his great work, unless he laid down minutely and in detail what each of them should exactly do. The result of this was that the technicians, manufacturers and craftsmen who depended for their orders on the architect did his bidding whenever it was at all possible, without feeling that they had freedom to propose what, from their intimate knowledge, they might consider better or more attractive solutions.

In fact, unless the appropriate engineers, technicians, and, in certain cases, craftsmen, were consulted before the plans were actually laid down, it might well become impossible to incorporate their most fruitful suggestions at all. Moreover, as we all knew, to make any human being, even an open-minded architect, alter a plan which he had once put forward as his creation, was a much harder task than to induce him to bring out a modified plan from the start. That line of thought would seem to indicate that there should be consultation from the start with the necessary technicians and craftsmen.

To establish such consultation with outside firms could never be easy, and might well be impossible. He had, therefore, frequently asked himself whether it would not be in the interest of their clients as well as of the architects, if, instead of having a large number of individual architects, each striking out on his own, learning his experience individually and at the expense of his customers, there were to be a closer grouping of architects in firms within which each of them could specialise in the direction for which he seemed best gifted. This would provide competent links between those chief architects, who would then be the modern master builders, and the technicians, craftsmen, trades or industries whom they employ.

At the head of the organisation there should, of course, be a man of ripe experience, great vision and a deep sense of æsthetic responsibility, for upon him would depend the maintenance throughout all the changes which modern progress brings about, of those great principles of dignity, good taste and seemliness which would make one contemplate the survival of contemporary architecture with less apprehension than is frequently the case.

If something could be achieved on those lines, it would also put a stop to the disconcerting practice of many modern architects attempting to design everything in and about the house, from the weathervane to the bath tap, from the piano to the kitchen range. It was that tendency which had made manufacturers so shy of working with architects, and which made craftsmen look upon them as a hostile influence.

The Exhibition at the Royal Academy showed, in all sections, examples of the advantages which industry might derive from assistance by architects, whenever they were dealing with matters within their competence. But there were also examples in the Exhibition, and a large number outside it, of the real harm that had been done to artistic production through the indiscriminate venturing by architects into spheres not specifically theirs.

If the architectural profession could enable its far too numerous individual members to crystallise out into some such well-organised groups as had been faintly outlined, it would enable the master minds amongst architects to become again, what he was afraid they could not be held to be to-day, master builders having full knowledge of all the processes involved in building. For they would be working with a general staff of young, specialised architects who would grasp the general ideas of the plan as a whole and enable each particular branch of the work to be carried out in the best manner possible. One happy result of an organisation of that kind would be that fuller freedom could be given to craftsmen to express their individual gifts, and another that greater advantage could be taken of the possibilities offered by guiding industrial production along sound lines.

The Trader's Standpoint.

Mr. Spedan Lewis, in the course of his paper, explained that he had been asked to criticise the Exhibition from the standpoint of a trader, and that the only part of trade of which he had any knowledge was retailing. He also pointed out that his remarks were based on criticisms supplied by a number of his partnership's technical experts.

His first suggestion, he proceeded, was that the managers of an exhibition of that kind should not only make up their minds quite thoroughly upon the question what functions it was to serve, but should also publish effectively their own answer to that question. He would like to see in the advertisements of such an exhibition, and in a conspicuous place at its entrance, an extremely clear-cut statement that its principal aims were so and so, and that those were the standpoints from which it was prepared to be criticised, although critics would be entitled, of course, to contend also that it should have aimed at different things or at more things.

He had asked himself what were, in fact, the principal aims of that exhibition. His own answer was that they were four. One was to affect the home demand directly by making the general public more sensitive to beauty and to convenience and more aware of the latest developments in those directions. Another was to affect the home demand indirectly by enlightening and stimulating shopkeepers not only in their choice of their stocks, but also in their methods of arranging and displaying those stocks. Another was to help the country's export trade by spreading among buyers for foreign markets, knowledge of the goods that British producers were offering at present. And, finally, the Exhibition aimed at improving British productions by bringing them into close comparison and under general criticism It seemed to him that some announcement of that kind would have improved the Exhibition's relations with the general public, including the Press.

Obviously the Exhibition was in a sense a collection of manufacturers' samples, and, of course, any display of a collection of manufacturers' samples must tend to have that character, but his own feeling was that that particular Exhibition made that impression to too great an extent, and that more of its space should have been used to show what people's homes ought to be and what a retail shop ought to be. The Exhibition made him feel, rightly or wrongly, that, if stimulation and enlightenment of the general public were so great a part, as he supposed, of its purpose, then a much larger and more suitable

part of its space should have been devoted to specimen rooms.

He suspected that the Exhibition relied too much upon attracting visitors by what he might call higher as opposed to lower motives. By higher motives he meant the ideas of making life beautiful and of promoting the prosperity of our own manufacturers. By lower motives he meant such things as mere curiosity and amusement. The first great exhibition of that type in Paris was thronged day after day with people whose spending power appeared to be very small. He asked himself what brought them there. It seemed to him that the answer was largely mere curiosity and that that curiosity was excited extremely by the great extent to which that exhibition was arranged in the form of specimen rooms.

Speaking still from the standpoint of direct stimulation and information of the general public, it seemed to him a very great mistake that every article exhibited did not bear its price. He would like to have seen in the Exhibition a much greater proportion of things that were frankly experimental and that were not likely to be saleable to any considerable extent. Such things were, to use a word that is now rather overworked, amusing. His own feeling as a shopkeeper was that an exhibition of that kind should err in the direction of being over-informative rather than of being too reticent.

He was struck by the fact that some of the best and most successful of his own buyers spoke very unfavourably of a large proportion of the exhibits in which they were experts. They seemed disappointed to find so much that to them was commonplace, and they were plainly disappointed that, among the efforts to achieve something new and good, there were not more cases of what they considered to be success.

It must be plain to everybody, the speaker concluded, that the Exhibition was in itself a very important achievement and that its successors would be more useful still and that, if a thing of that kind was to be attempted at all, repetition might be necessary if we were to reap anything like the full fruit of all the time and trouble and ability that were put into the first effort.

Vote of Thanks.

Sir William Llewellyn, P.R.A., proposing a vote of thanks to the lecturers, said it was a pity that the papers were not given during the exhibition, for they would have drawn a great number of visitors. He could not understand Mr. Lewis, who had missed entirely the primary objects of the exhibition, which were to bring artists and manufacturers together and to help industry and increase employment. They had no idea of appealing to retail trade. The objects of the exhibition had been plainly stated at the beginning and restated since. During the two years of preparation of the exhibition a tremendous amount of good had been done by promoting contact between artists and manufacturers.

Mr. Frank Pick, seconding the motion, said the exhibition had been much criticised, but criticism, unless it set up a standard of right and wrong, praise and blame, was of no use at all. The exhibition was bound to do good. It had provoked discussion, and had prepared the ground for future exhibitions. The speaker ended by criticising our national habit of leaving things to chance, and said that we must get rid of the haphazard accidental complex that beset us.

Mr. P. H. Jowett said the exhibition, in bringing designers and manufacturers into closer contact, had achieved its object to a considerable extent, but he hoped that manufacturers would not all go to one designer merely because he was well known and fashionable, but have courage to go to new men.

Mr. A. H. Moberly commended to the attention of the meeting the exhibition of work by students of L.C.C. art schools at the County Hall, recently opened by Lord Gorell.

Mr. de la Valette and Mr. Spedan Lewis having made vigorous replies to the discussion, the vote of thanks was put to the meeting and carried with acclamation.

BEXHILL ENTERTAINMENT HALL

USE OF WELDED STEELWORK.

On Friday last, about 30 district surveyors paid a visit to the Bexhill Entertainment Hall structure to inspect the welded steelwork which forms the frame of the building. They were received at Bexhill by the Deputy Mayor, Major Striedinger, who briefly addressed them on the developments in Bexhill which led to the competition, won by the architects, Messrs. Erich Mendelsohn and Serge Chermayeff. The address was replied to by Mr. B. Greig, who pointed out that the District Surveyors had considered the developments in the nature of welded construction, as shown by the work at Bexhill, of such importance that they had, for the first time, gone out of the boundaries of London to investigate the structure.

During the luncheon, Mr. Erich Mendelsohn and Mr. Serge Chermayeff outlined to the assembly the architectural features of the hall, pointing out that the structure embraced a theatre, conference hall, and a restaurant.

Mr. Helsby, of Helsby, Hamann, and Samuely, the consulting engineers for the work, outlined the principal developments in welded construction and the economies to be gained by its use, and the party were afterwards shown over the structure, where the consulting engineers were closely questioned by the District Surveyors upon points of outstanding interest.

The Welded Members.

The structure has a frontage 364 ft. long, and is roughly divided into three portions: (1) the auditorium, (2) the entrance hall, and (3) the restaurant. The auditorium will have a seating capacity of about 1,500 to 1,800 people, and will be capable of being converted into a dance hall when not needed for theatrical purposes. The roof span is 74 ft. 10 in. Welded construction has been used throughout the auditorium and equally throughout the remaining portion of the building. The roof has several notable features. In the first place, the several members of the roof trusses are built up of sections, the upper boom of the main truss being made of a channel and a plate, and the lower boom being made of two plates to form an inverted tee. The angle made by the roof tie with the rafter is comparatively acute, this being very easily obtained in welded construction. Four main trusses were employed for the auditorium roof; intermediate trusses carried secondary rafters which again supported the purlins. All these members are peculiar to welded construction.

One of the many interesting features of the entrance hall construction is the series of plate girders which support the roof, and partly the second floor by means of hangers. Plate girder construction is typical of the development made in welded design. The two types of plate girder are used, one with laminated flange plates and the other having a single plate flange.

The restaurant building has two floors and a sun deck. The first floor and roof are cantilevered along one side of the structure to form balconies. Three rows of columns are employed in picking up the main floor beams. The row supporting the balcony is of rectangular section fabricated from plates. The middle row is of round solid columns of 5 in. diameter. The back row is of rolled steel I section. A notable feature of the structure is the manner in which the floor beams are picked up by the round columns; no space is taken up for brackets beyond the thickness of a single plate below the actual depth of the beam. The box type column evolved is a simple method of construction, and yet very efficient.

In designing the work for erection, bolts were used principally to hold the members together until site welding could be accomplished. Where a relatively few extra bolts would suffice conveniently to take the reaction at that joint, further bolts were introduced to make a bolted joint; but in no case where welding has been used has bolting been assumed to take any portion of the load.

The contract is being carried out by the Braithwaite Welding and Construction Co., Ltd.

OBITUARY

Edward Bell.

We regret to record the death of Mr Edward Bell, architect of the cathedral of St. John the Divine, New York. He was born at Aberdovey, North Wales, in 1873, and was educated at the school there. Apprenticed to a monumental sculptor at Towyn, he later qualified as an architect, and for a time was employed at Hawarden. About 30 years ago he went to America, where he joined the firm of Jacobs and Young, of New York, and on the death of Mr Jacobs became the principal of the firm. Mr. Bell was responsible for the building of several Fifth-avenue mansions, but his great life work was the building of the cathedral.

Francis H. Crittall.

The death at sea, at the age of 75, is announced of Mr. Francis Henry Crittall, the founder of the steel-window firm bearing his name. The business was founded in 1882 in a shed behind an ironmonger's shop in Braintree, Essex, and has now branches and subsidiary companies in many countries. It has an authorised share capital of £1,500,000. Mr. Crittall retired from active connection with the firm in 1933, and his son, Sir Valentine Crittall, is the present chairman. The late Mr. Crittall showed his interest in architecture in a practical way, and established a garden city at Silver End, planned by Mr. T. S. Tait, F.R.I.B.A. Mr. Crittall, with the collaboration of his wife, published a book last year entitled "Fifty Years of Work and Play"

BEXHILL ENTERTAINMENT HALL: Progress of Welded Framework.

SOCIETIES AND INSTITUTIONS

R.I.B.A. COUNCIL MINUTES.

FOLLOWING are notes from the minutes of the Council meeting held on February 11 :—

Attendance at Oral Examinations.—On the recommendation of the Board of Architectural Education a regulation has been made that if a candidate is not in attendance at the oral examination he will automatically fail unless he can supply a valid excuse.

Intermediate Examination: Test in Design.—On the recommendation of the Board it was decided that candidates in the Intermediate Examination be given ten days' notice of the titles of the design subjects.

The Henry L. Florence Bursary, 1933.—The Board reported that they had approved the report on his tour submitted by Mr. Theodore Fyfe, F.R.I.B.A., Henry L. Florence Bursar, 1933.

International Exhibition, Brussels, 1935.—The Council, on the recommendation of the Exhibition Sub-Committee and the Art Standing Committee, have accepted the invitation of the Department of Overseas Trade to undertake the arrangement of a section on the work of British Architects at the International Exhibition to be held at Brussels from April to October of this year. The work has been entrusted to the Exhibition Sub-Committee.

Presentations to the Library.—The Council have expressed the cordial thanks of the Institute to Mr. Sydney Kitson, F.R.I.B.A., and Major H. C. Corlette, F.R.I.B.A., for the following presentations to the Library :—

Mr. Kitson—Shipton-on-Cherwell Church, water-colour by William Turner, the architect, 1831; pencil drawing of the Colosseum, Rome, by Joseph Bonomi, 1796; pencil drawing of the chancel of Conway Church by Wm. Alexander, 1767-1816.

Major H. C. Corlette—wash drawing by J. C. Klengel, 1751-1824.

University of London Architectural Education Committee.—Mr. T. A. Darcy Braddell, F.R.I.B.A., and Mr. Hubert Lidbetter, F.R.I.B.A., were nominated as the R.I.B.A. representatives on the University of London Architectural Education Committee for the twelve months beginning March 1, 1935.

Advisory Council on Plant and Animal Products: Advisory Committee on Timbers.—Lt.-Col. P. A. Hopkins, F.R.I.B.A., was appointed as the third R.I.B.A. representative on the Advisory Committee on Timbers.

Standardisation of Dimensions of Clay Bricks.—Mr. S. Pointon Taylor, Mr. A. H. Barnes, Mr. W. E. Vernon Crompton, and Mr. Alan E. Munby, FF.R.I.B.A., were appointed to represent the Institute on the Technical Committee which has been set up to deal with the standardisation of the dimensions of clay bricks.

Standardisation of Baths.—The Science Standing Committee reported that a formal suggestion had been sent to the British Standards Institution that baths and their fittings should be standardised.

The Architects' Registration Council: Appointment of R.I.B.A. Representatives.—The following members were appointed to represent the R.I.B.A. on the Architects' Registration Council for the year ending March, 1936 :—

Messrs. W. H. Ansell, Henry V. Ashley, Harry Barnes, T. A. Darcy Braddell, H. M. Fletcher, C. Lovett Gill, A. G. Henderson, A. B. Knapp-Fisher, Hubert Lidbetter, A. H. Moberly, J. Alan Slater, Sydney Tatchell, Percy Thomas (all Fellows).

The Architects' Registration Council: Appointment of R.I.B.A. representatives on the Admission Committee.—The following members were appointed to represent the R.I.B.A. on the Admission Committee of the Architects' Registration Council :—Messrs. Kenneth M. B. Cross, F.R.I.B.A., J. Douglas Scott, A.R.I.B.A., Thomas E. Scott, F.R.I.B.A., Geoffrey C. Wilson, F.R.I.B.A.

R.I.B.A. Architecture Medals: Royal Society of Ulster Architects.—The award of the jury in favour of the new Northern Ireland Parliament Buildings, designed by Sir Arnold Thornely, F.R.I.B.A., was formally approved.

Resignation.—The following resignations were accepted with regret :—J. G. Walker, A.R.I.B.A., J. Potts, L.R.I.B.A., J. R. Stark, L.R.I.B.A., F. G. I. Legg (retired), L.R.I.B.A.

Transfer to the Retired Members' Class.—The following members were transferred to the Retired Members' Class :—

As Retired Fellows : A. S. Conrad, W. St. Leger Crowley, A. W. Hennings, F. Lishman, G. W. Lord, F. B. Peacock, J. H. Pitt, H. V. Wolstenholme.

As Retired Licentiate : G. G. Lynes.

Election of Students.—The following Probationers were elected as Students of the R.I.B.A. :

B. A. Amarasinghe (Inter. Exam.).
S. F. Ashby (Univ. of London).
Joan Marion (Leeds Sch. of Arch.).
A. E. Carter (R.W.A., Bristol).
Ruth I. M. Churchill (A.A.).
Mary E. Cooke (B'ham. Sch. of Arch.).
R. H. Crompton (Inter. Exam.).
J. D. P. Fowler (L'pl. Sch. of Arch.).
J. H. R. Froggatt (Univ. of Sheffield).
D. A. Green (B'ham. Sch. of Arch.).
R. Horne (Inter. Exam.).
A. J. Howes (Cambridge Univ.).
J. T. Latheron (Armstrong Coll., N'castle-on-Tyne).
P. H. Laurence (A.A.).
J. G. S. Lawson (Armstrong Coll., N'castle-on-Tyne).
A. L. Luke (Special Exemption).
M. J. Mann (Northern Poly.).
G. H. G. Marriott (Poly., Regent-street).
E. G. McDonnell (L'pl. Sch of Arch.).
L. D. Morrison (Special Exemption).
R. Gillan (Secured approved qualifications in Dominions).
M. Pearlman (A.A.).
T. McE. Porter (A.A.).
C. Pritchard (Inter. Exam.)
S. G. W. Ross (Inter. Exam.).
J. S. Scott (B'ham. Sch. of Arch.).
Mary D. Sharpe (Leeds Sch. of Arch.).
Jean Shufflebotham (A.A.).
W. V. Smith (Northern Poly.).
W. G. Sweet (Welsh Sch. of Arch.).
Marjorie Tall (Univ. of London).
C. V. Tillett (Univ. of Cambridge.)
C. R. B. Vickery (Welsh Sch. of Arch.).
F. B. Ward (Jnr.) (A.A.).
C. H. Weed (Northern Poly.).
F. R. Wright (Leicester Coll. of Arts and Crafts.)

ROYAL SOCIETY OF ARTS.

The Problem of Noise.

A paper entitled "The Problem of Noise" was read by Sir Henry Richards, C.B., LL.D. (chairman of the Executive Committee, Anti-Noise League), before the Royal Society of Arts on Wednesday, March 6. Lord Elton presided.

The lecturer said that as his colleague on the Anti-Noise League Council, Mr. Hope Bagenal, pointed out, it was roughly true that our buildings defended us from noise in proportion to their massiveness, and that thin modern drum-like floors, walls and partitions tended to transmit sound. The safety of the public in all new housing schemes was carefully guarded as to strength of structure, but the natural sound insulation due to mass was sacrificed. As the din of modern town life increased the power of avoidance decreased. No longer could we fly to the country for peace and tranquillity. Ribbon development was scarring the whole land with lines of clamour. Not the most remote of villages was secure.

Under the leadership of Lord Horder, the Anti-Noise League, from its headquarters, 66, Victoria-street, was doing its utmost to arouse public opinion on the scandal and danger of unchecked and unnecessary noise. It had approached, not unsuccessfully, Government departments and the leaders of the motor and radio industries. But the real and permanent remedies could not come from the mere action of a society, however vigorous. Let us realise that remedies did exist, and take courage from the history of the cobbled roads, the iron tyres, the dust-covered hedgerows of only yesterday which had all in turn disappeared under the influence of science and invention. The first great remedy was the power of science to cure the evils it had itself created. It was quite certain that the volume and incidence of noise could be enormously lessened.

The lecturer then touched on some of the experiments in noise abatement which would be demonstrated at "The Noise Abatement Exhibition," organised under the auspices of the Anti-Noise League, to be held next June in the Science Museum, South Kensington. They hoped, he said, to demonstrate all those constructional improvements which the study of acoustics was likely to give. There would be an exhibit of the Silent House with sound-proof ventilating windows, a sound-proof door, a silent lift and silent locks. There would be demonstrations of industrial noises made in two boxes, one sound-proof and the other not. In the exhibit connected with transport and machines, they hoped to show an efficiently silenced motor cycle, an extremely quiet motor, silent vacuum cleaners, a silenced road breaker and exhaust silencers of all kinds. They hoped also to give some idea of the intensive research now being organised into the question of noise measurement and noise analysis, and into the effect of noise generally on the hearing, the nerves, and health of industrial workers.

WESSEX SOCIETY OF ARCHITECTS.

The Annual Dinner.

The president, Major H. Stratton Davis, F.S.A., F.R.I.B.A., occupied the chair at the annual dinner of this Society, held in Cheltenham recently. The guest of honour was Sir Giles Gilbert Scott, R.A., P.R.I.B.A., and a large and distinguished body of guests and members were present.

Submitting the toast of "The Royal Institute of British Architects," the president said that the R.I.B.A. seemed to be consumed with a fervent desire to do away with the muddle, chaos, and disorder they saw in our towns and the countryside. He believed that in this respect the Royal Institute was patiently playing a winning game.

Sir Giles, responding, said the strength of the R.I.B.A. must rest on the strength and vigour of the allied societies, and he must say he had been very gratified at his experiences in the various centres of the allied societies at the apparent vitality of those societies. The prestige and status of the profession was, he thought, distinctly on the up-grade, and he thought that in this centenary year of the profession they might congratulate themselves that the profession stood higher in the public estimation than it had ever done before.

Sir Frederick W. B. Cripps (chairman of the Gloucestershire County Council), responding to the toast of "The County and Municipal Authorities," proposed by Mr. W. I. Croome, said that they owed in Gloucestershire a great debt of gratitude to the craftsmen of the past who endowed the country with their great churches, their great houses, their smaller manor houses, and even their farm buildings, which were a credit to the men of the age in which they were built, of whom they were all proud. "If your society can do anything to prevent other nations taking away our Cotswold cottages and erecting them in a foreign land in quite improper surroundings and advertising them as Elizabethan houses, no one would have a deeper sense of gratitude to your society than I shall myself have," the speaker concluded.

BIRMINGHAM AND FIVE COUNTIES A.A.

Annual Dinner.

Speaking at the annual dinner of this Association, held in Birmingham on March 1 (Mr. W. T. Benslyn, president, in the chair), Mr. J. T. Buckland, responding to the toast of "The Birmingham and Five Counties Architectural Association," proposed by Mr. E. W. Record, referred to the fact that some years ago it was decided that the work of building alternate elementary schools in the city should be entrusted to the practising architects of Birmingham. The good results of this step could not be overestimated. Within the city there was a set of schools second to none in the country, not only from the point of view of accommodation, but from the architectural point of view. Forty thousand houses, he understood, had been built by the municipality, and a very small percentage was the work of practising architects of the city. "Architects are not slow,"

he said, "in admiration nor jealous of the advances of others, but they are a little envious of a man's opportunities. I understand that the City Engineer is retiring, and I make the suggestion that the time has come when the city might find it a wise course to do as the Education Committee has done, and entrust very much more architectural work to the architects of the city.

"I know there has been discussion in the past and a proposal that all our architectural work should be the subject of architectural competitions, but I do not believe that this is a practical proposition. I feel, however, that a good result and economy to the ratepayers will be achieved if some method such as has been adopted by the Education Committee should be adopted by other committees of the City Council."

Replying to the toast of "The Royal Institute of British Architects and Allied Societies," Sir Giles Scott said that Birmingham in his mind was so much associated with machinery that he could not help thinking of the enormous influence machinery had on architecture. "There is no doubt," he said, "that the machine complex is having an enormous influence on architectural design. We have the ideal of the aeroplane, the liner, and the motor-car, all machines capable of accommodating human beings and designed for transport purposes. They have been used as a source of inspiration by the modern school of architecture. I am afraid the difference in the conditions between a static house and a machine that moves is not sufficiently recognised, but it is a fact that in the modern school you find that anything that cannot be used satisfactorily on a machine is rather taboo in architecture. You get the machine ideal running through the whole frame of modern architecture. Motor-cars, what an influence they have had on town planning and regional planning! I cannot help feeling that the machine is going to dominate architectural and artistic thought in an extraordinary way.

"Architects are getting greater opportunities in modern life than they had in the past. They have been brought more into the life of the nation, and it is therefore essential that they should have a strong educational organisation. There is a grand opportunity for public authorities to employ architects on matters on which in the past they have not consulted them. It is necessary that public authorities should take the greatest care in selecting their architectural advisers."

EDINBURGH A.A.

At the monthly meeting of the Council of the Edinburgh Architectural Association, held at 15, Rutland-square (Mr. W. J. Walker Todd, A.R.S.A., vice-president, in the chair), Mr. John Ogilvie was awarded first prize in connection with the competition for a one-story house, while Messrs. A. B. Wylie and Colin Fraser secured second place. The winners of the first and second prizes for a two-story house were Mr. R. H. Matthew, A.R.I.B.A., and Mr. G. A. Lyall respectively.

The following members were elected:—Messrs. Lyon Balfour Paul, Tynehead, and A. B. Wytie, Colinton, as students; Mr. J. W. Sinton, of Messrs. Wood and Cairns, Ltd., as affiliate.

ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND.

At the monthly meeting of the Council of the Royal Incorporation of Architects in Scotland, held at 15, Rutland-square, Edinburgh, Mr. Wm. B. Whitie, F.R.I.B.A., President, in the chair, a report by the Housing and Town Planning Committee, in reply to a questionnaire submitted by the Scottish Architectural Advisory Committee, was approved as to the best architectural talent available being obtained for working-class housing and other schemes in town and country. Mr. James A. Arnott, F.R.I.B.A., was appointed representative to the R.I.B.A. Board of Architectural Education for 1935-36, while the president, with Messrs. Balfour Paul, Arthur and Soutar, were appointed representatives to the Council of the Royal Institute. A donation of £10 was voted to the North British Architectural Students' Association.

Sir G. Washington Browne was unanimously nominated as an Honorary Fellow of the Royal Incorporation in respect of his distinguished services to art and architecture. The following members were elected:—Messrs. J. P. M. Wright, Aberdeen; G. L. H. Walls and W. I. Thomson, Edinburgh; and J. T. King and J. D. A. Macdonald, Glasgow. As Associates: Messrs. W. J. C. Simpson, J. H. Donald, A. S. Robertson, J. L. Coghill, A. L. C. Lemon, W. I. Dawson, Alex. Fraser and Robert Thomson, Aberdeen; E. H. Crosbie, J. A. H. Mottram, H. C. Berneaud, Ralph Cowan and G. E. Foote, Edinburgh; A. M. Crockart and W. B. M'Call, Stirling; and George Ure, Larbert—as students.

DUBLIN ARCHITECTURAL SOCIETY.

A meeting of the Architectural Society was held in University College, Dublin, Mr. B. O'Connor, president, presiding. Mr. Joseph V. Downes, B.Arch., N.U.I., vice-president of the Royal Institute of Architects of Ireland, delivered a lecture on "Some Recent Buildings Abroad," and showed some interesting lantern slides of important buildings in Holland, Germany and the United States of America.

THE COLLEGE OF ESTATE MANAGEMENT.

The Quinquennial Valuation.

The last of a series of special Tuesday lectures at the College of Estate Management, Lincoln's Inn Fields, was given on February 19 by Mr. John A. F. Watson, F.S.I., whose subject was the quinquennial valuation of London.

The lecturer first gave a description of the procedure of assessment and rating and of the machinery of appeal, and then, for the assistance of young surveyors in his audience, mentioned a few points, some of them of a psychological character, useful to bear in mind when making an appeal to the assessment committee. One point on which he laid stress concerned the measuring up of properties for purposes of assessment. The surveyor was sometimes told that it was "not a question of square yards"; nevertheless, when valuing street after street day after day, it was extraordinary how, unless one had some standard space basis, one's valuation tended to vary according to the weather or the time of day. If he had to deal with a number of small houses—weekly properties—he first took the external measurement, multiplied by the number of floors, and so got so many hundred or thousand square feet for each dwelling. Having entered this in his field book, he got a schedule of all the rents in the street, and endeavoured to arrive at a fair and reasonable rent, somewhere between the extremes which the occupiers in the street might actually be paying. Then he took the rent and divided it into the number of square feet for each house (the houses not being identical, of course, but similar in type), allowance being made for any house which had a garage or a large garden, and so forth. In that way he was able to arrive at the result that, perhaps, so many houses were let at 9d. per square foot, so many at 7d., so many at 4d., and so on. He then decided what was the fair rental value through that street, and if, for example, this were put down at 6d. per square foot, it gave the surveyor a great advantage in defending his valuation before the assessment committee. He could say that the house in question and every other house in the street was valued at 6d. per square foot, and if it was said that that was excessive he could point out that there were so many housess in that street which worked out at 7d. per square foot, so many at 8d., so many at 9d. That was very effective.

The lecturer also gave some useful advice on the conduct of his case by a surveyor when actually defending or opposing an assessment before the committee.

ARCHITECTURAL LIGHTING CONFERENCE

THE last of the 1935 series of architects' conferences on electric lighting, sponsored by the joint committee of the architectural profession and the E.L.M.A. Lighting Service Bureau, was held at Brettenham House on Thursday, February 28, when Mr. R. O. Ackerley spoke on "Lighting in Relation to Surface Texture." Mr. A. H. Carmichael was in the chair.

He proposed, began the lecturer, to speak on the reaction of various types of decorative surface treatment to different systems of lighting. In all cases the appearance of walls, ceilings, curtains and upholstery was at least as important under artificial lighting as under daylight. Even in our homes, opportunities for enjoying the comfort and beauty of our surroundings were mainly given to us in the evening after the day's work was over; while in many cases, such as restaurants, cinemas, theatres, etc., decorations were only seen by artificial light. In fact, one speaker in the series had referred to the fact that it was daily growing more important for the architect to decide in advance whether he was going to plan his decorative scheme predominantly from the point of view of its appearance under artificial light. It should therefore be of interest to examine various types of surface under alternative systems of lighting. The surfaces to be examined included wall and ceiling treatment by paints, wood panelling, wallpapers, curtains and upholstery, and last but not least, from the exterior floodlighting point of view, different types of building material. In examination, three alternative general systems of illumination, namely, diffuse, indirect and directional were used.

Before proceeding to examine typical surfaces under our various systems, we must consider the basic causes. The appearance of any illuminated object depended primarily on two things:—(*a*) Its power of reflection, which directly affects the relative brightness of every part of it; (*b*) its shape, which, in addition to possibly creating actual shadow, by affecting the angle of incidence of the light, serves to vary the relative light and shade.

Reflection could be of two types, namely, diffuse and specular, the former being that which we got from a matt surface, the latter from a polished surface. Combined with diffuse reflection we got the phenomenon due to colour, that was to say, a selective absorption of light which only allowed rays of certain colours to be reflected. In actual practice, the reflection from almost every form of decorative surface was partially diffuse and partially specular, and was also affected by the colour both of the surface and of the transmitted light. The angle of incidence at which the light struck the object materially affected the proportion of specular reflection, and even the most apparently matt surface had some power of specular reflection at very oblique angles. Bearing in mind these basic principles, it was not surprising to find that under alternative systems of lighting, and viewed when lit from varying angles, the texture of surface, by altering the degree of light and shade and the composition of surface by varying the proportion of diffuse and specular reflection, materially altered the appearance of the surface to the normal observer.

The lecturer then showed interesting demonstrations illustrating how the character of the lighting affected the appearance of different kinds of wallpapers and fabrics when placed on walls or ceilings. The effects were influenced by the proportion of gloss and the nature and direction of the pile. He also showed representative samples of wall panelling in different finishes when illuminated by diffuse, indirect and directional lighting, and mentioned that the Lighting Service Bureau was equipped with a permanent demonstration to illustrate some of these effects, particularly the appearance of materials under lighting of different colours.

THE "BUILDER" DEBATE

LXXIII.—"*That the building industry, as regards housing, is in a state of chaos.*"

SIR,—"Positive" must have found it difficult to support such a claim as he makes, in the midst of a country where the most stupendous effort in housing has been carried through in a remarkably short space of time. That the number of houses is approaching the adequate is shown by the "To Let" boards which are beginning to be displayed before a good many newly built houses.

The question of the slums is perhaps a distinct one, and we are not able to point to such a successful record as in the case of the ordinary small dwelling. But I suggest that it is grossly unfair to lay the responsibility for this at the door of the building industry, when the real fault has been with the politician. We must, however, have the greatest patience even with him, confronted, as he has been, with a great number of urgent problems demanding solution. Actual work upon rehousing slum dwellers has barely commenced, not because it is too big a problem for the builders to tackle, but because the necessary orders have been given only recently, and then only as the start of a campaign.

We hear a great deal about the inadequacy and antiquity of our building by-laws, but little is said about the many revisions of the most elastic nature which most areas have adopted where the amount of building within them makes this question of revision a pressing matter. The differences from district to district are indeed slight. I know of cases, it is true, where one district demands a minimum height of 4 ft. 6 in. in rooms wholly or partly in the roof, while in a neighbouring district the height demanded is 5 ft. A similar difference is between the distances required for a cesspool from the nearest building, where one authority may demand 50 ft. and another 60 ft. But I imagine no responsible person would suggest that such differences are a real handicap to building development as between one district and another. Nor would most people deny the right of any district to set its own standards within reasonable limits.

With regard to the thickness of walls, this seems rather a trivial point when the subject under discussion is housing, the greater part of which is two-story work, for which no authority demands a greater thickness of wall than 9 in. and few building experts consider a lesser thickness desirable. In addition to this, most districts have a by-law dealing with special forms of construction, in which the only demand is that the walls should be of sufficient thickness to ensure stability and weather-resisting qualities. If this does not give sufficient scope to those who desire new forms of construction, perhaps "Positive" will suggest a clause which might be substituted for it, to which no doubt the Minister of Health would lend a sympathetic ear.

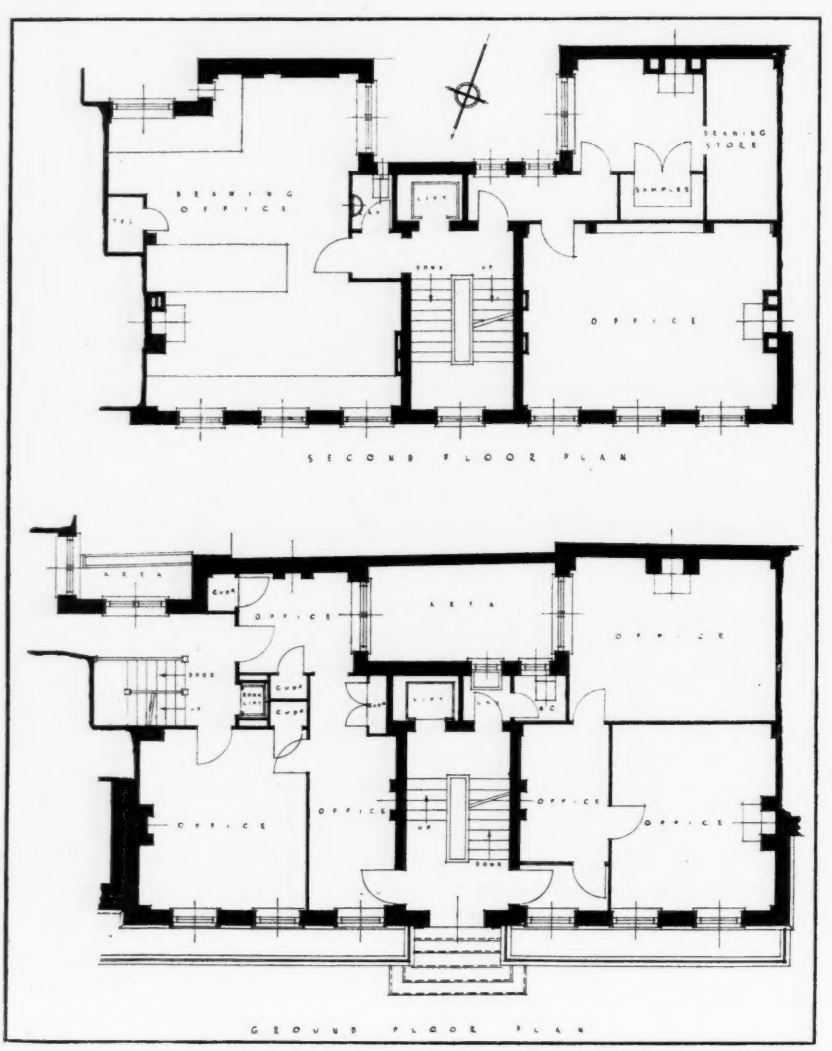
With regard to the letter of the law as to flats and rooms, almost every law can be reduced to an absurdity if the citizen tries hard enough and the officials administer it with a minimum of intelligence. Surely, however, "Positive" will admit that the principle of insisting upon special fire-resisting qualities where a building is divided into a number of units under distinct and separate responsibilities is a sound one, and that the case of a house including a number of lodgers under single control and responsibility is a different one. I think there is no doubt that he is making a great deal out of very little upon this point, and that it bears no relation to the chaos into which he alleges the building industry has fallen.

I am also unimpressed by his remarks about weathered and throated cills. There is no by-law anywhere that I am aware of which demands this feature, but I am well aware that most designers consider that this precaution is worth while, whether in sooty atmosphere or in the country, where "Positive" must know that top edges become vegetated and that dirty greenish streaks develop where no measure has been taken to throw water clear of the building. Tradition is, of course, the sum of the experience of many generations, and those who treat this lightly do so not only at their own peril but at that of the uninformed community.

"Positive" is no doubt aware that steps have already been taken to check ribbon development and that authorities can acquire full and adequate powers to deal with this chaotic condition. I concede him the element of chaos in this direction with confidence that the remedy has already been found and is already at work if we have only the patience to await the harvest.

I agree entirely on one point, that is, the question of architectural design. In this we have found no solution whereby the great building effort of the post-War period can be directed into the ordered channels of architectural thought. The only comfort I can give "Positive" and myself in this matter, upon which we stand shoulder to shoulder, is that a generation of experience under the Architects' Registration Act may bring about the results we both desire more quickly than we may hope at the present moment.

F.R.I.B.A.



No. 3, FIELD COURT, GRAY'S INN, W.C.
MR. C. W. REEVES, F.R.I.B.A., Architect.

THE HOUSING BILL

We take the following extracts from a memorandum just submitted to the Minister of Health by the Auctioneers' and Estate Agents' Institute of the United Kingdom.

Overcrowding.

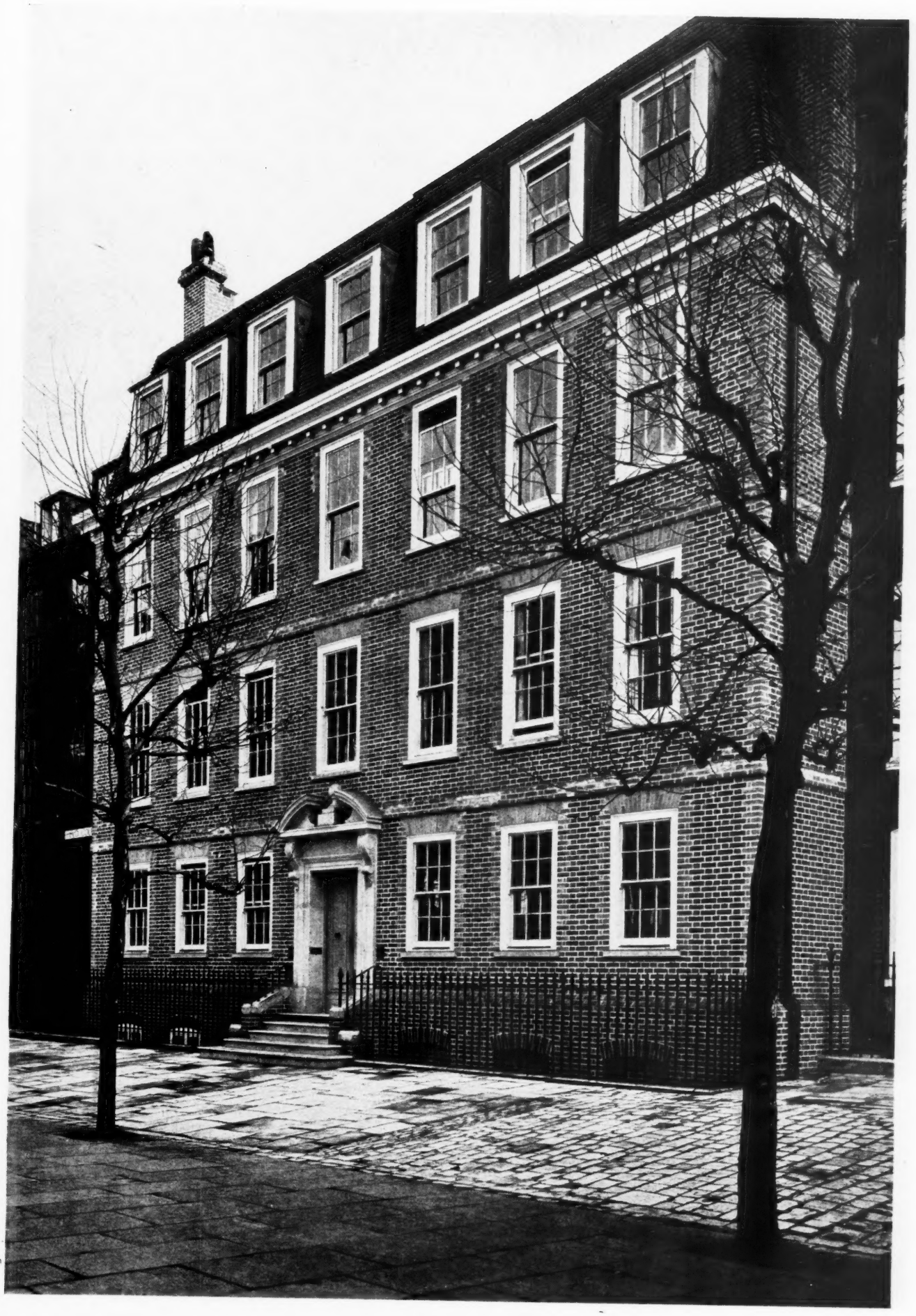
On this subject the general opinion is expressed that "the standard as indicated in the Schedule is higher than we should have anticipated, and we are afraid, judging from practical experience amongst our members, that the actual effect, if the Schedule is left in its present form, will be to create too difficult a problem at the outset, which may delay, rather than assist, an easy attainment of the desired improvement."

PUBLIC UTILITY SOCIETIES.—"We are glad to see that encouragement is given to private enterprise and initiative by the extended recognition of and assistance given to Public Utility Societies. We should like to have seen similar encouragement given to private owners. We suggest that every opportunity for improving the housing of the very poor should be utilised, and it is our considered opinion that, given equal opportunities, private initiative can do equally good work in this direction as local authorities. We think it is a pity that the credit for constructive assistance should seem to be legislatively confined to local authorities, whose duty, in more healthy circumstances, could more properly be limited to administrative ability."

THE TRIBUNAL AND RIGHT OF APPEAL.—"We find a definite opinion of regret existing that the Minister is still left burdened with the duty of deciding the question of condemnation of property as uninhabitable. The view is generally expressed in influential quarters that either there should be a right of appeal to a Court of Law, or to some *ad hoc* judicial authority, or, alternatively, that the Official Arbitrators should be charged with this duty when assessing the case of disputed compensation."

St. Mary's Guildhall, Lincoln.

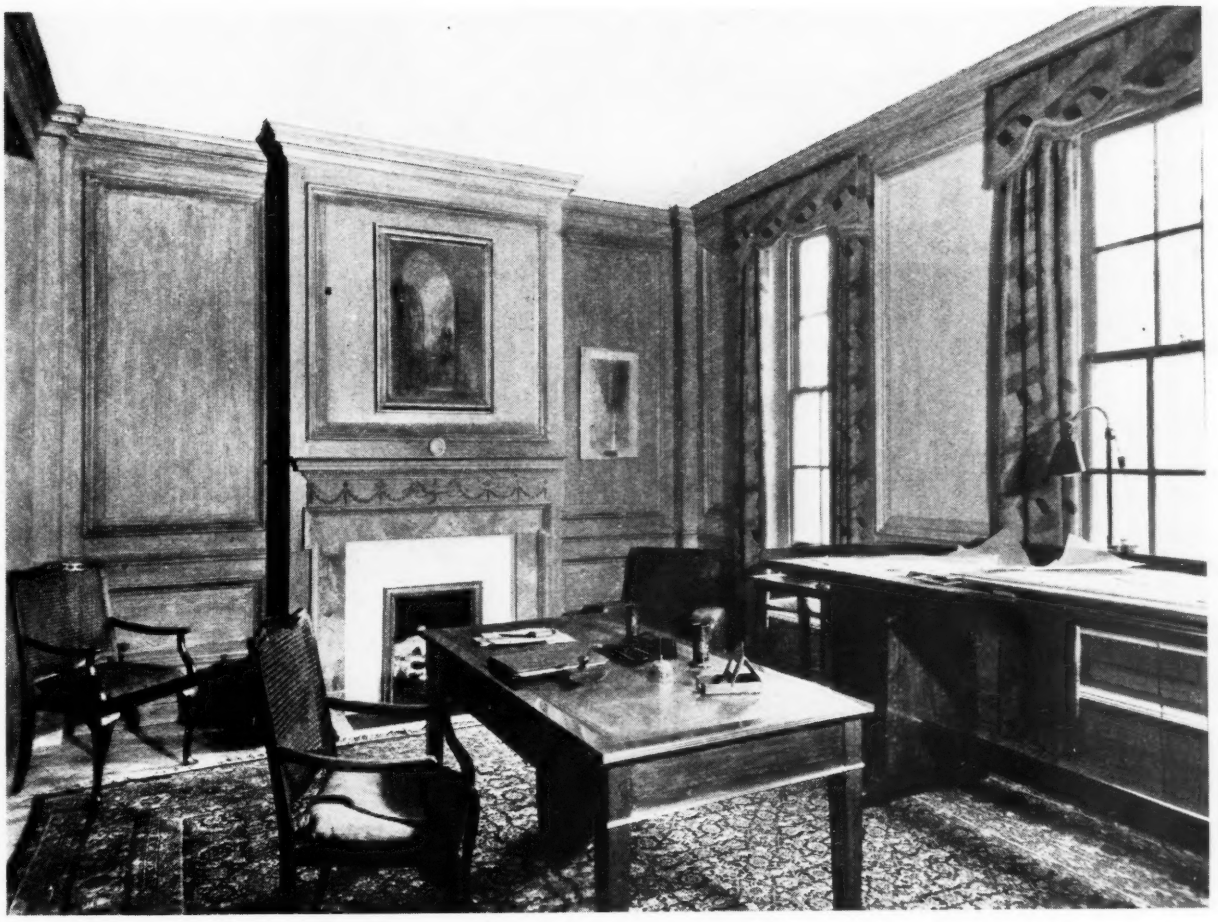
It has been decided to launch an appeal for £2,500 for the purchase of St. Mary's Guildhall, Lincoln. The building is at present used as a builder's workshop and warehouse. At a meeting convened to discuss the matter, Mr. Robert Atkinson said the building was of the late eleventh or early twelfth century, and was more complete than perhaps any other secular Norman building in the country. The building did not show any indications of later architecture.



No. 3. FIELD COURT, GRAY'S INN, W.C.

MR. C. W. REEVES, F.R.I.B.A., F.S.I., SURVEYOR TO THE HONOURABLE SOCIETY OF GRAY'S INN, Architect

(See page 507.)



SIR GILES GILBERT SCOTT'S OFFICE.

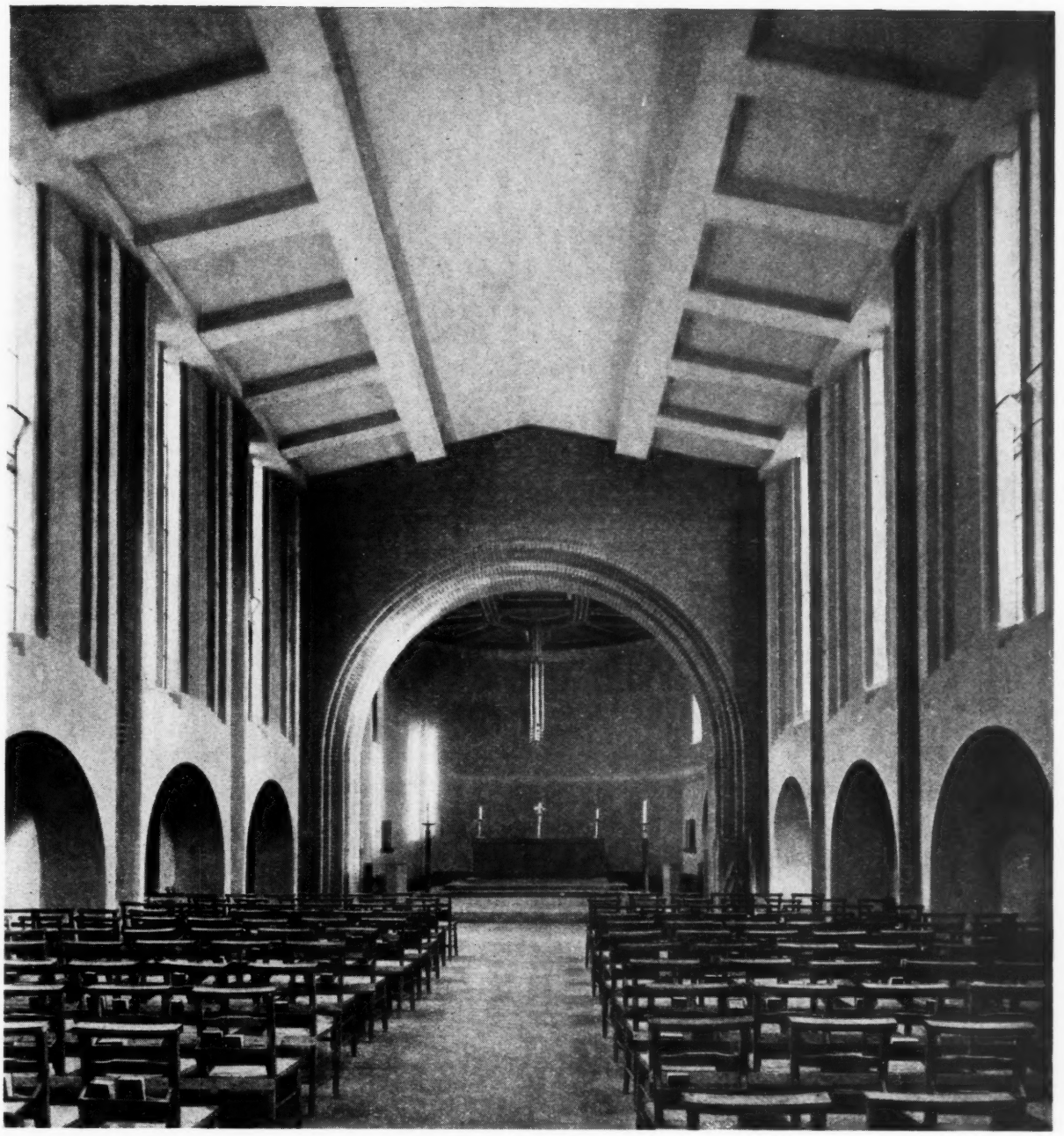
DRAWING OFFICE.

No. 3 FIELD COURT, GRAY'S INN, W.C.

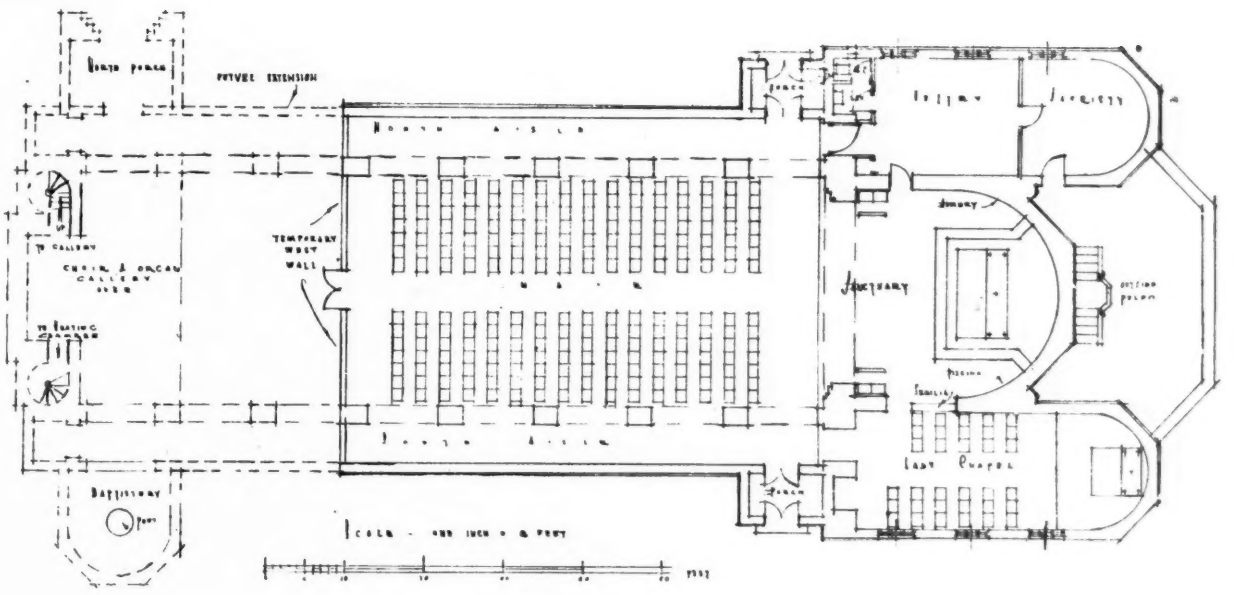
MR. C. W. REEVES, F.R.I.B.A., F.S.I., SURVEYOR TO THE HONOURABLE SOCIETY OF GRAY'S INN, Architect.

(See page 507.)

CHURCH OF ST. GEORGE, BRENTWOOD, ESSEX: View from South-East, showing Outside Pulpit.
MR. LAURENCE KING, A.R.I.B.A., AND MESSRS. CROWE AND CARELESS, AA.R.I.B.A., Associated Architects.
(See page 507.)



VIEW IN NAVE, LOOKING TOWARDS SANCTUARY.

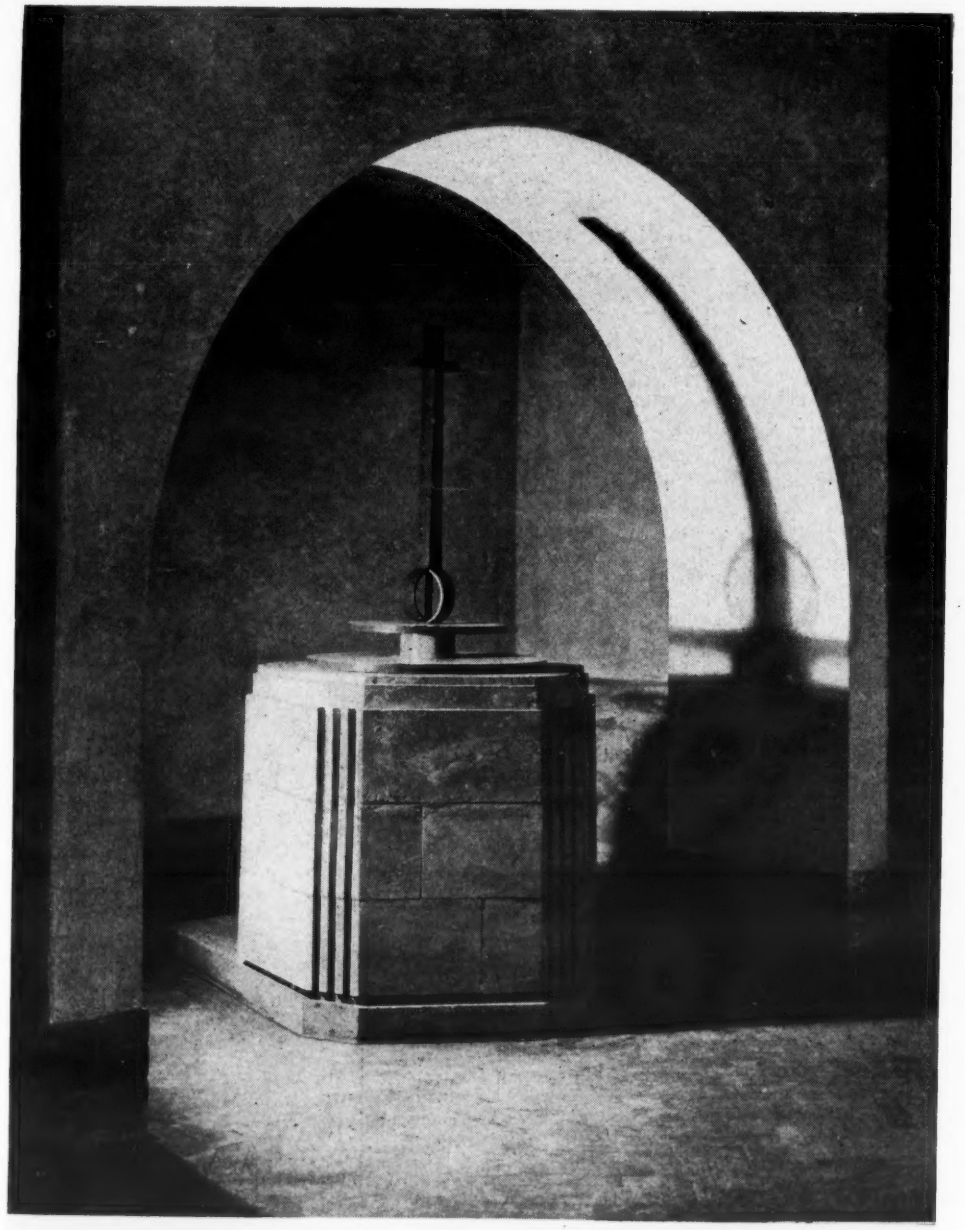


GROUND-FLOOR PLAN.

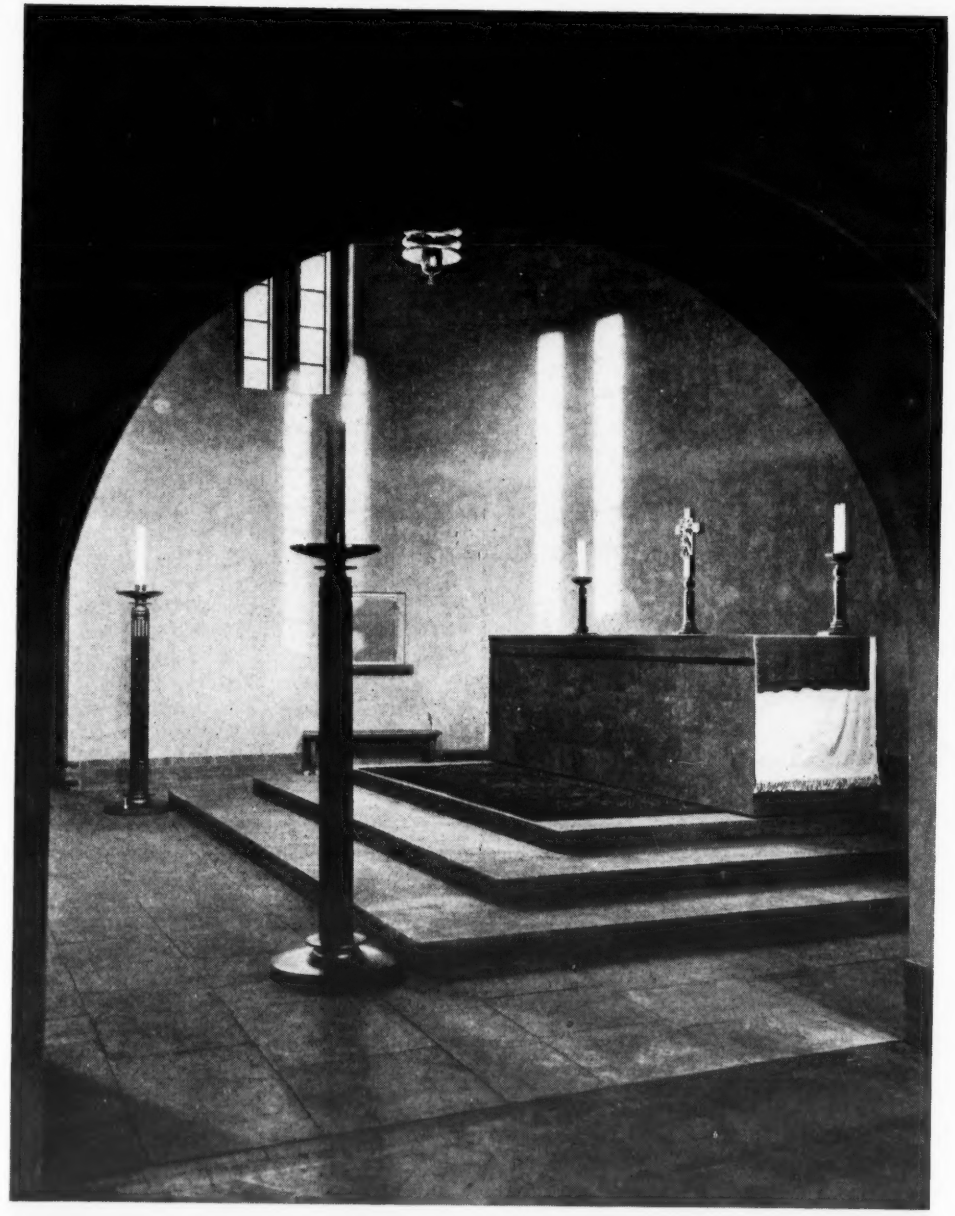
CHURCH OF ST. GEORGE, BRENTWOOD, ESSEX.

MR. LAURENCE KING, A.R.I.B.A., AND MESSRS. CROWE AND CARELESS, AA.R.I.B.A., Associated Architects.

(See page 507.)



BAPTISTRY.

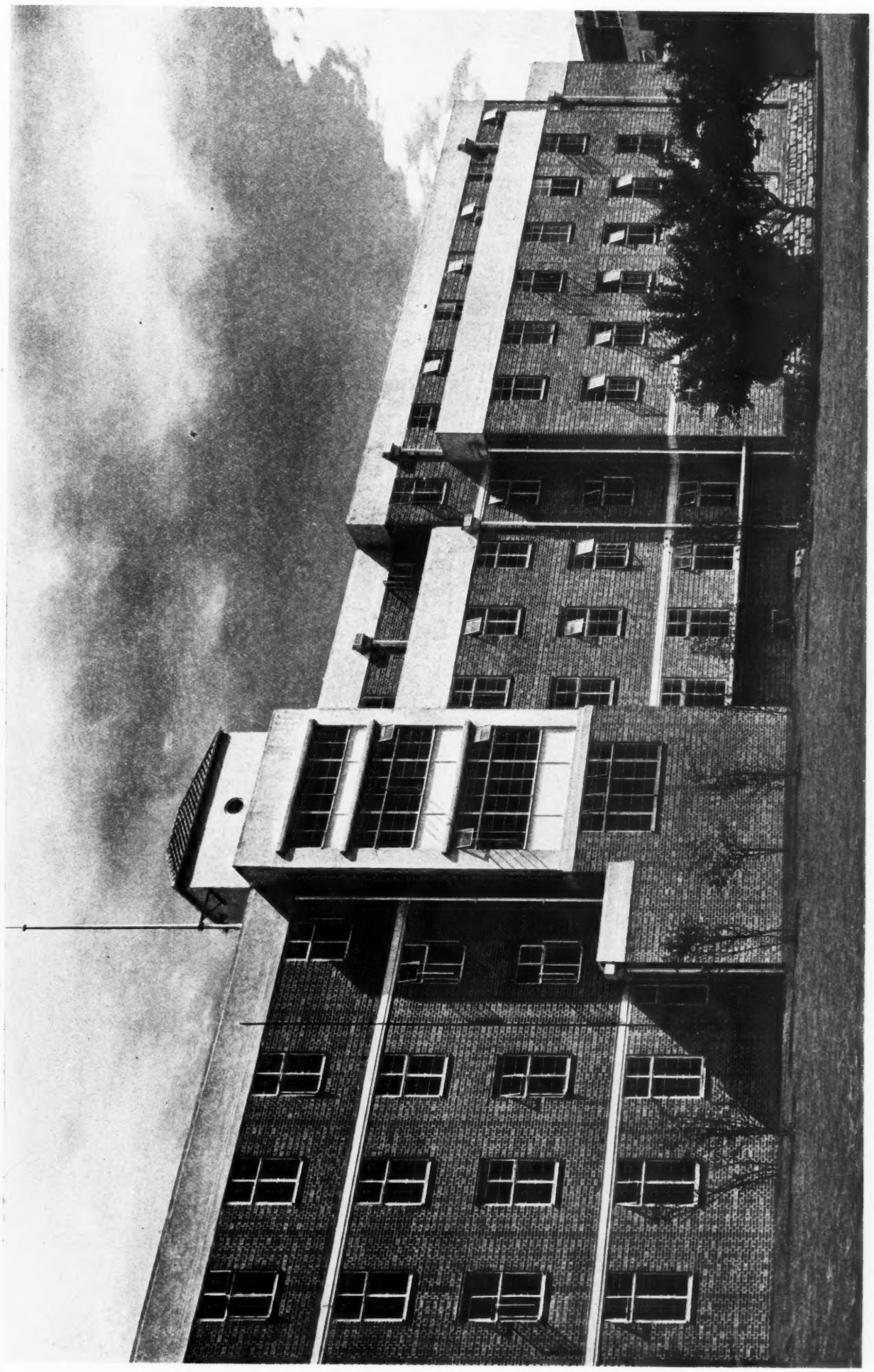


VIEW FROM LADY CHAPEL, LOOKING INTO SANCTUARY.

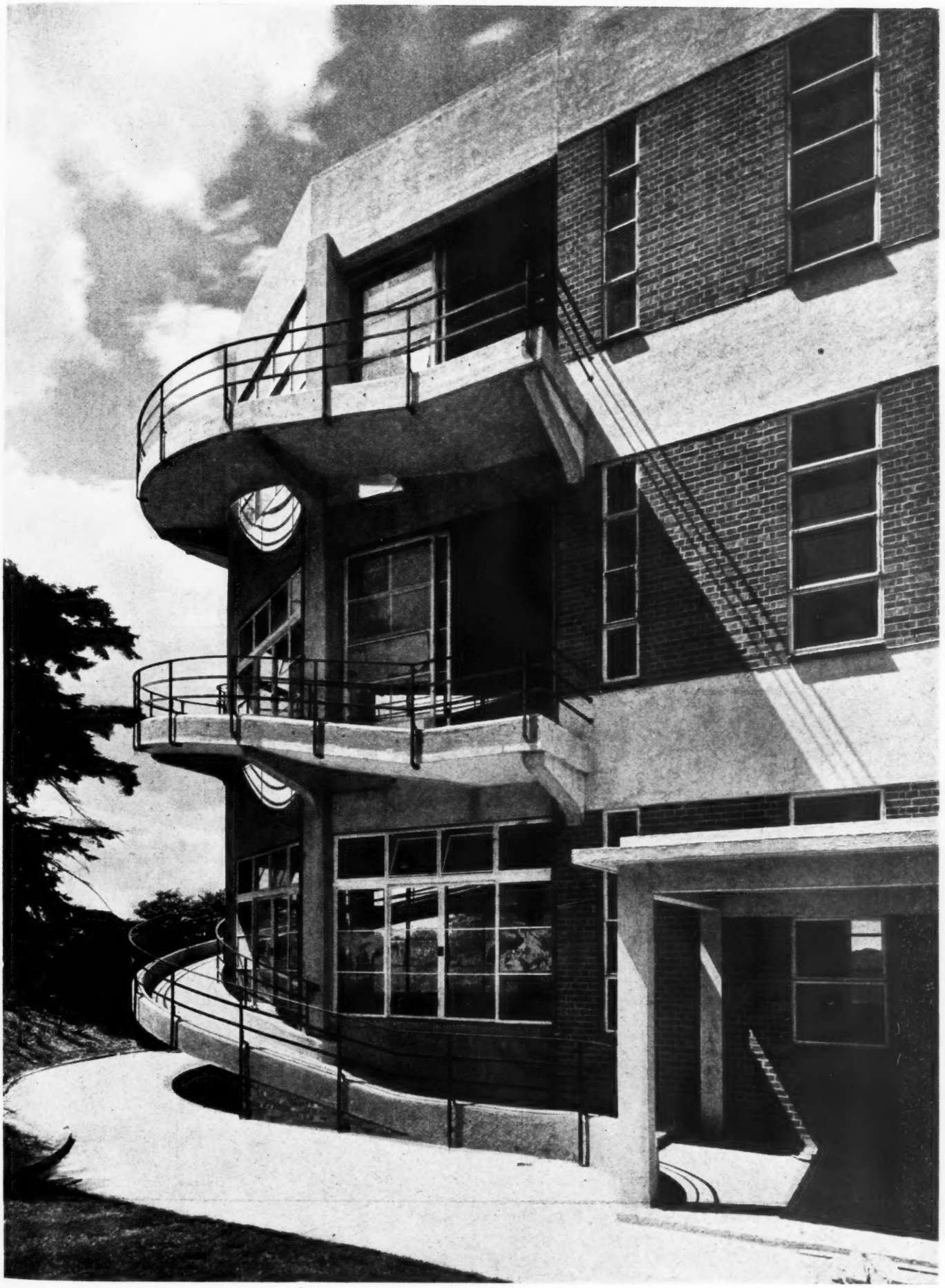
CHURCH OF ST. GEORGE, BRENTWOOD, ESSEX.

MR. LAURENCE KING, A.R.I.B.A., AND MESSRS. CROWE AND CARELESS, AA.R.I.B.A., Associated Architects.

(See page 507.)



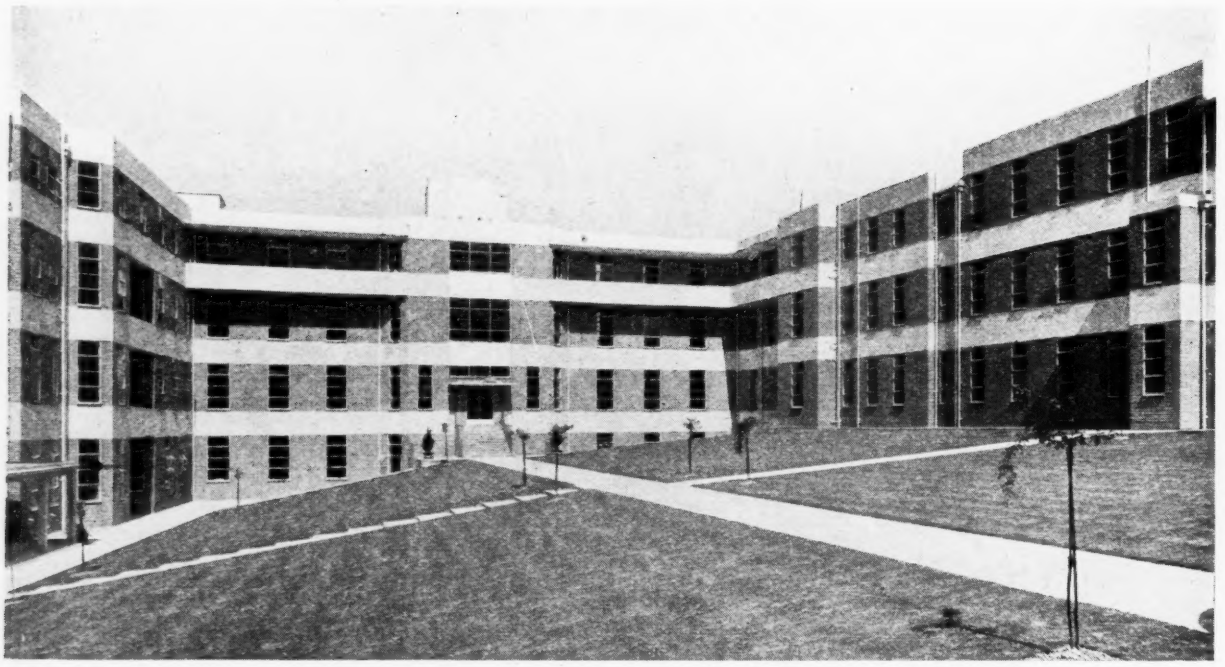
THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS : Nurses' Home.
MR. CECIL BURNS, F.R.I.B.A., Architect.
(See page 507.)



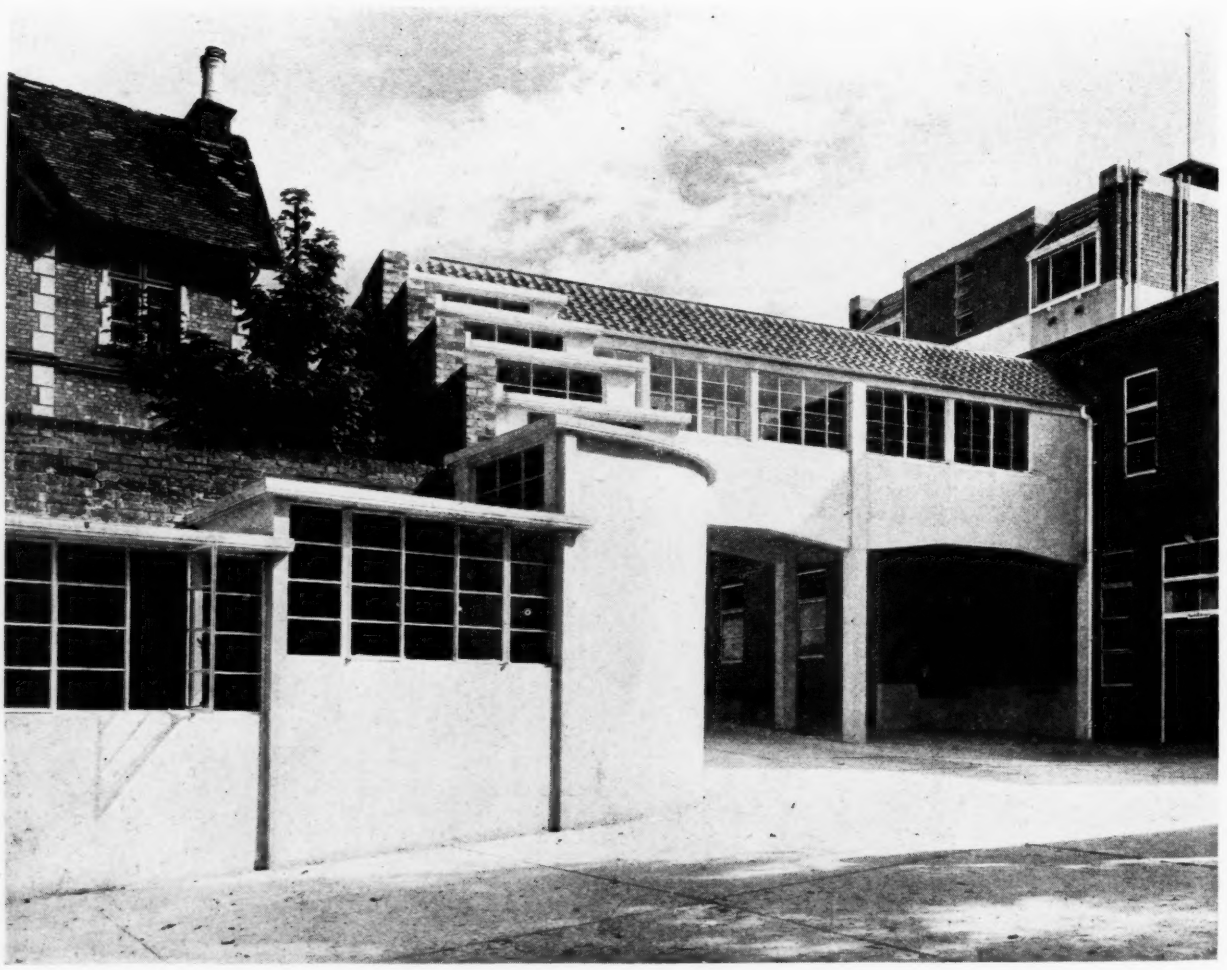
THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS : Reinforced Concrete Spiral Ramps connecting Covered Balconies.

MR. CECIL BURNS, F.R.I.B.A., Architect.

(See page 507.)



VIEW BETWEEN WARD WINGS.



BRIDGE AND COVERED WAY TO NURSES' HOME.

THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS.

MR. CECIL BURNS, F.R.I.B.A., Architect.

(See page 507.)

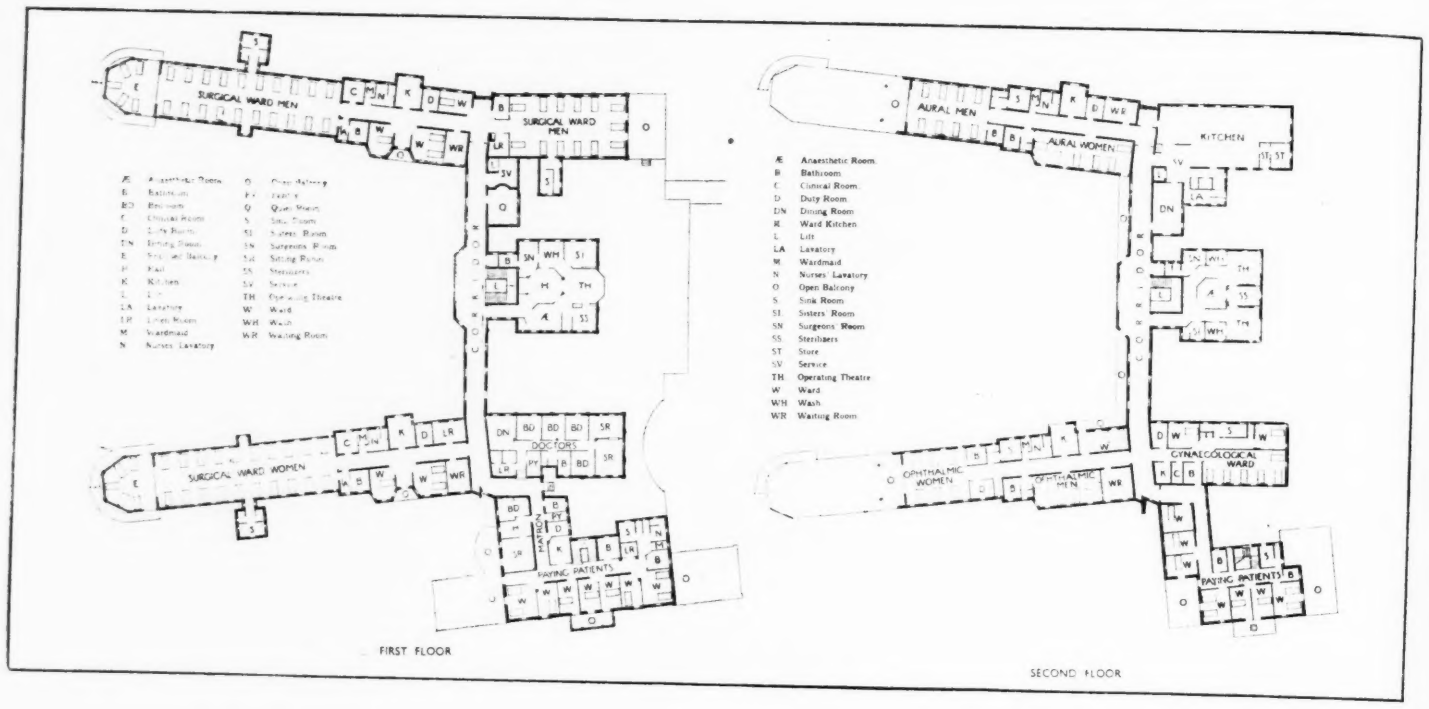
A WARD.

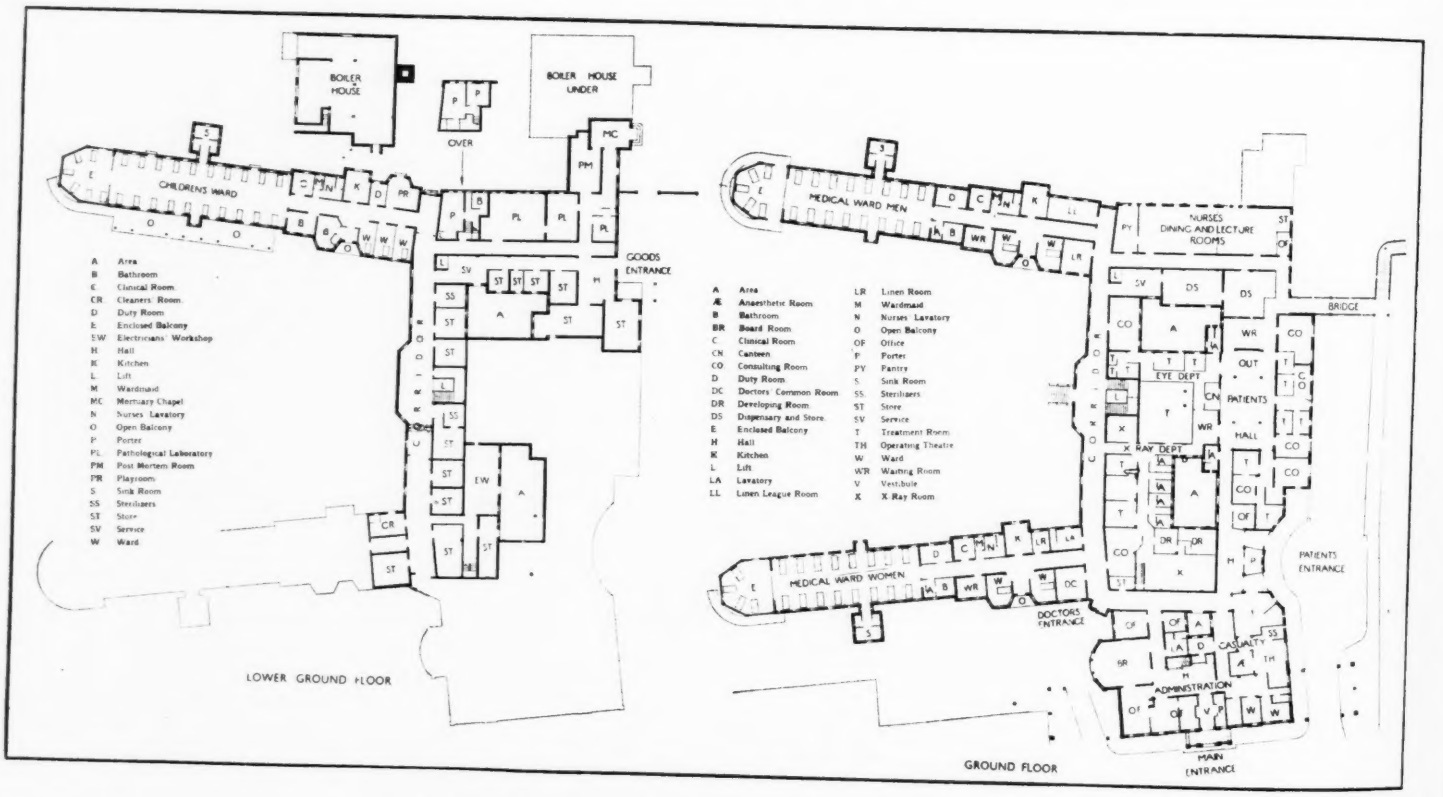
PATIENTS' ENTRANCE.

THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS.

MR. CECIL BURNS, F.R.I.B.A., Architect.

(See page 507.)





THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS.

MR. CECIL BURNS, F.R.I.B.A., Architect.

(See page 507.)

ILLUSTRATIONS

PLATES

No. 3, Field-court, Gray's Inn.

This lately completed building stands on the site of an old house recently demolished. Field-court adjoins Gray's Inn Square, and the building faces the fine old pair of wrought-iron entrance gates to the garden, dated 1760. The building has been designed in the traditional style to accord and be in character with others in Gray's Inn Square and the vicinity. The planning has been arranged for suites of offices, one of which has been taken by Sir Giles Gilbert Scott, R.A. His room is panelled in white wood, and another is in old oak panelling. The front is faced with Dorking hand-made sand-faced multi-coloured bricks, with the entrance and steps in Portland stone.

Messrs. Woodward and Co. (Finsbury), Ltd., were the builders, and clerk of the works was Mr. W. G. Rule. The following were the sub-contractors: Matthew T. Shaw and Co., Ltd., steelwork; King's Hollow Floor Tiles for flooring; Hammond Bros. and Champness, lifts; Stuart's Granolithic Co., Ltd., stairs; Gardners, Bristol, strong-room doors and iron railings; Hollis Bros., oak block flooring; French Asphalte Co., asphalt; Green and Vardy, Ltd., panelling to Sir Giles Scott's room and stairs; Yannedis and Co., and James Gibbons, Ltd., ironmongery; Cashmore Art Workers, staircase balustrade; Pontifex, Ltd., sanitary fittings; John Macquire, tiled roof; Lewis Berger and Son, Ltd., paint.

The architect is Mr. C. W. Reeves, F.R.I.B.A., F.S.I., Architect to the Benchers.

Church of Saint George, Brentwood, Essex.

Built to the memory of the Rev. Charles Grinstead, this church stands on a prominent corner site on the outskirts of Brentwood. It is planned with a wide nave of five bays with narrow passage aisles north and south separated from the sanctuary by a large brick arch. The sanctuary, which is apsidal, has the altar standing out from the east end. To the north of the sanctuary is the vestry and sacristy block, and to the south the Lady Chapel, both blocks projecting beyond the east end of the sanctuary. Entrance is by two porches north and south.

The building stands on a reinforced concrete raft, and is constructed of local hand-made sand-faced bricks, pinkish-grey in colour. The roofs are in ferro-concrete, and a contrast is provided by blue Hornton stone used for the high altar, font and altar in the Lady Chapel. An unusual external feature is the outside pulpit in Portland stone, at the back of which is a crucifix carved by Mr. Lestocq de Castelnau-Bucher. This crucifix is floodlit at night.

In the nave the light sources are concealed panels in the cills of the clerestory windows, which not only emphasise the window lines, but provide a reflected light from the roof. This lighting is controlled by a dimmer, so that at the appropriate times during the service it can be gradually reduced. The sanctuary can be lit generally from the concealed cill panels, or flooded with white or flame-coloured light, and can also be lit by floodlights outside the building.

A note of colour is provided in the ceiling to the sanctuary, which is painted in bright green, red and black.

The general contractors were Pitchers, Ltd., and the principal sub-contractors and suppliers included:—K. Holst and Co., reinforced concrete; F. M. Noble and Son, Ltd., bricks; Hornton Quarries, Ltd., internal stonework; Damer Bros., Ltd., external stonework; Ragusa Asphalte Paving Co., Ltd., asphalt; W. James and Co., Ltd., windows; British Pipeless Central Heating, heating; Mortimer Gall and Co., Ltd., electric light; Artificers Guild, Ltd., furnishing.

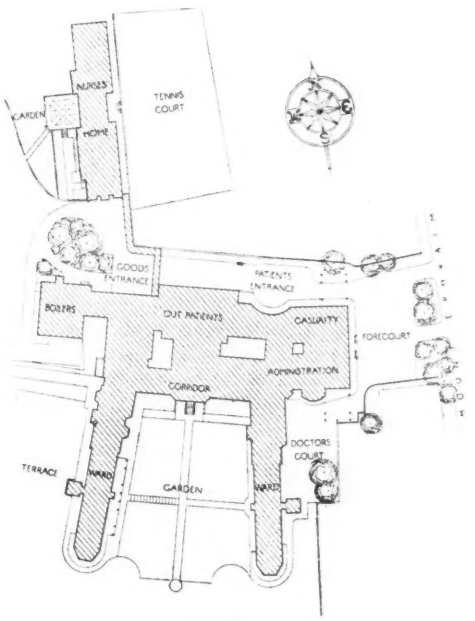
Mr. Laurence King, A.R.I.B.A., and Messrs. Crowe and Careless, AA.R.I.B.A., are the associated architects.

Kent and Sussex Hospital, Tunbridge Wells.

Reinforced concrete has been used throughout as the main structural material in the erection of this new hospital, the building having been designed as a reinforced concrete frame. The columns do not show on the elevations because they have been masked by the brick facing. The deep horizontal bands, a prominent feature of the elevations, form the beams, which not only act as load-carrying members transmitting the load from the floors and walls to the reinforced concrete columns, but form a part of the wall construction, and, in consequence of their finish, a part of the decoration of the elevation.

By utilising the depth between the floor and the window-sill as reinforced concrete beams it was possible to space the columns at centres which show great economy in the cost of the foundations. In addition to this saving, by confining the loads to selected positions it is possible to found the bases carrying these loads at a depth sufficient to ensure freedom from atmospheric changes in the supporting soil.

The portion of load usually referred to as the "dead" load has throughout been reduced to the minimum. The elimination of unnecessary material, and the utilisation of



KEY PLAN

THE KENT AND SUSSEX HOSPITAL, TUNBRIDGE WELLS.

MR. CECIL BURNS, F.R.I.B.A., Architect.

the combined wall and beam construction, have also saved expenditure.

"Truscon" floors with suspended ceilings were used throughout the hospital, and full advantage was taken of the space provided by this floor to accommodate the electric pipes and services.

In the boiler house, reinforced concrete was used for the construction of the walls and floors, and by the care used in the selection and proportioning of aggregates, waterproof concrete was produced. In this particular section the "Truscon" floor was also used, but in this case the suspended flat ceiling was omitted.

Attention may be drawn to the illustration on page 485, which shows the flat roof over the ward below, which forms a sun balcony to the ward at this particular level. The flat roofs have been covered with "Solcheck" tiles. These are pre-cast concrete slabs perforated and supported on feet to ensure an air space underneath. This covering forms an effective insulator, and protects the structure from expansion and contraction movements. Apart from this safeguard, it is claimed that "Solcheck" slabs prevent the upper stories from becoming excessively hot in the summer, a precaution which is particularly necessary in hospitals. As these flat roofs form sun balconies, the tiles provide a paving which is dry under all conditions, and care has been taken to ensure that the slots and holes in the tiles are of such dimensions that the wheels of beds or chairs pass over them readily without inconvenience.

The whole of the structural reinforced concrete which is exposed on the elevation, that is, the white horizontal bands, the fire escapes, parapets, etc., has been finished by rubbing down with white cement and sand.

Features of note in the design of the hospital are the open planning of the site, and the gardens which have been formed between the two main wings. To the left of the main block of buildings is the nurses' home, which is constructed in a similar manner to the main hospital block, and is connected to it by a corridor constructed wholly in reinforced concrete. An unusual detail, and one worthy of note, is the design of the concrete rainwater heads. The heads were cast on the job, and finished in a similar manner to the remainder of the reinforced concrete work.

The whole of the reinforced concrete work was designed and constructed by the Trussed Concrete Steel Co., Ltd., who were also responsible for supplying and laying the "Solcheck" roofing tiles.

The total cost of the hospital (including equipment) was £180,000.

The general contractors were Messrs. John Jarvis, Ltd., and the following firms were also associated with the work:—J. H. Nicholson and Co., Ltd., heating and hot-water supplies; The Bective Electrical Co., Ltd., electrical installation; John Bolding and Sons, Ltd., sanitary fittings; Matthew Hall and Co., Ltd., plumbing work; Henry Hartley and Co., plastering; The Limmer and Trinidad Lake Asphalte Co., Ltd., asphalting; Christiani and Nielsen, Ltd., ventilation; J. Slater and Co., Ltd., kitchen equipment; Waygood Otis, Ltd., lifts; The Walpamur Co., Ltd., paint for walls and ceilings; The Runnymede Rubber Co., Ltd., rubber floor coverings; Jas. Gibbons, Ltd., locks; The Crittall Manufacturing Co., Ltd., metal windows; The High Brooms Brick and Tile Co., Ltd., bricks.

Mr. Cecil Burns, F.R.I.B.A., is the architect.

PLUMBING COMPETITIONS

MANCHESTER BUILDING EXHIBITION.

In connection with the fourteenth Manchester Building Trades Exhibition, to be held in the City Hall, Deansgate, Manchester, from April 2 to 13, the management offer three awards for the Journeyman Test, and three awards for the Apprentice Test, to the competitors placed first, second and third in each test respectively by the assessors, on condition that the assessors consider the work to be worthy of the awards. The awards for each test will be:—First £5, second £3, and third £2. These competitions are open to all journeymen and apprentice plumbers respectively. These competitions are being run in conjunction with the North-Western Regional Federation of Plumbers and Domestic Engineers (Employers), and the management have appointed the following to act as assessors:—Messrs. W. F. Thacker (North-East Lancashire Federation of Master Plumbers' Associations), W. L. Fozard (Federation of Master Plumbers' Associations, Manchester Area), D. H. England (Manchester Municipal College of Technology). All work must be executed in the City Exhibition Hall, Deansgate, Manchester, at the date and time advised. Entry forms are obtainable from "Plumbing Competitions, Building Trades Exhibition, City Hall, Deansgate, Manchester," to arrive by Wednesday, March 27.

CHARTERED SURVEYORS' INSTITUTION

DECAY OF TIMBER IN HOUSES

In a paper read before the Chartered Surveyors' Institution on March 4, Mr. K. St. G. Cartwright, M.A., D.I.C., F.L.S., spoke on "The Decay of Timber in Houses."

After tracing the history of various types of fungi, the lecturer said that an outbreak of dry-rot, if it was discovered in an early stage, could easily be eradicated with, as a rule, little expenditure of money, though if the cause of the outbreak had been due to some radical fault in construction, it might prove a costly business to prevent risk of a future outbreak; if, on the other hand, the outbreak had been due to a local defect, such as a leaky cistern, the remedy would not prove difficult.

It was, of course, obvious that prevention was better than cure, but in the majority of cases the tenant or owner had leased or bought a house already in being and had no choice but to make the best of the structure already in existence. Therefore it was proposed, first of all, to discuss the detection and methods of cure on discovery of dry-rot, and from this the faults in building, which most often led to such outbreaks, would become apparent. Certain general principles would emerge in regard to construction in relation to the prevention of trouble from dry-rot, which had to be taken into account; these included not only the actual construction, but soil conditions and choice of suitable building sites.

Detection.

It was an unfortunate fact that the early stages of an outbreak of dry-rot were generally hidden from sight, and no suspicion of trouble was aroused until the attack had become fairly widespread; yet there were certain signs which, if recognised, would materially assist in its detection. If there was any suspicion of dampness in the wood or walls an immediate investigation should be made. Outbreaks usually occurred on the ground floors or in basements and cellars; they might also occur in the neighbourhod of water pipes and cisterns or in roofing timbers where tiles or lead flashing had become displaced, and at other times where a chimney-stack entered the roof; but it was in the woodwork of cellars and ground floors where serious outbreaks were most likely to occur. The woodwork which was most likely to be attacked was, in the case of hollow floors, in joist ends or in any woodwork embedded in external walls, such as wooden fixing fillets or wood in contact with such walls, as, for example, skirting-boards and panelling. Woodwork near to chimney-breasts often showed the first sign of attack owing to the frequent lack of free ventilation there. The first indication of trouble might be the falling in of a floor through failure of a joist, and such a case was, of course, self-evident.

An indication that dry-rot might be present was the warping outwards of panelling or of skirting-boards with a cracking of the paintwork: if this was observed, investigation should be made, when it would often be found that dry-rot was active behind. Such warping indicated, in any case, that an increase of moisture content of the timber had taken place, and that therefore conditions favourable to an outbreak of dry-rot were present. If there was any suspicion of possible trouble it could often be detected by sounding skirting and panelling in any suspicious place, or by jabbing a pointed instrument into the wood; in the former case a hollow, dead sound would be indicative of trouble; in the latter, if the wood was sound, the point of the tool would be gripped by the wood fibres and would consequently resist removal, whereas, if the wood was unsound this resistance would be reduced, and the point could be removed with ease. The woodwork adjacent to any damp wall should be carefully examined, and, if necessary, boards removed for this purpose. Attention should also be paid to all woodwork in odd corners, such as that of cupboards under staircases. In skirting-boards, joist ends and panellings the attack was most usually due to *Merulius lacrymans* or *Poria vaporaria;* in solid floors *Coniophora cerebella* was the species most commonly present, as also in the timber of damp cellars and in leaky roofs. "In our experience," said the lecturer, "attack by this fungus is most prevalent in the type of floor in which the flooring is fastened directly to untreated wooden fillets embedded in concrete (without a damp-proof course), a type which should not be sanctioned by anyone responsible for a building scheme. Such floors are far too common, and the case is usually aggravated by the laying of an impervious covering such as linoleum over the floor boards immediately on completion. Some councils forbid their tenants to use linoleum, at any rate until the concrete has been allowed to dry out thoroughly, but although this is a necessary precaution where such construction is allowed, it is putting a somewhat severe restriction on the class of tenant who occupy such buildings, one that can usually ill afford carpets and yet dislike the bare flooring made often of a poor-grade deal; in addition, the labour involved in keeping such a floor clean is considerably lessened where linoleum is laid down. The remedy lies in laying down more stringent regulations in regard to building construction and in drying out the building thoroughly before occupancy."

First Steps in Effecting Cure.

When an outbreak of dry-rot was discovered, the first step to take was to decide whether the fungus responsible for the attack was *Merulius lacrymans* or *Coniophora cerebella*. Both might be present in addition to other species but, provided that one satisfied onself whether *Merulius* was present or not, one could safely proceed. As a rule that was easily decided if the investigator had once seen an active attack of this fungus; if, however, any doubt remained, samples should be sent for identification to an expert.

The importance of first deciding this point was stressed because, although the steps to be taken where *Merulius* attack was involved would be efficient against all the other fungi, yet for the majority the incurring of unnecessary expenditure was a major consideration, and much of it might be unnecessary if the outbreak proved to be due to *Coniophora* or one of the other species, which was dependent on an abundant moisture supply. The lecturer quoted cases where the owner proposed to incur considerable expenditure, in which mould fungi were alone present, due to dampness caused by a local leak, and where no decay had taken place, any fungus on the wood being apparently considered by him as dry-rot.

If, after careful inspection, one was satisfied that the attack had been caused by *Coniophora*, or was of a similar type, the next step to take was to remove all affected wood and to find out the root of the trouble, *i.e.*, the cause of the excessive moisture, which could often be traced to a leaky pipe or overflowing cistern, a frequent cause in older houses being a leak in a rainwater pipe where it passed through the wall into the house, thus soaking it with water during wet periods. Sometimes a local area of attack was set up due to splashings from a bathroom, and the water running down into cracks under linoleum, where it could not quickly dry out. In roofs the cause could often be traced to a displaced tile or to water running under upturned lead flashings. The absence of a damp-proof course in chimney-stacks might at times lead to trouble. On the ground floor in the hollow-floor type of construction it might be found that water had percolated through porous brickwork of solid walls; or, in the case of cavity walls, the cavity might have become bridged by mortar droppings or rubbish during construction.

A very frequent cause of trouble, especially on poorly drained soils, was due to damp rising up from the soil, and in such a case the absence of a damp-proof course would allow free access of water to the timber. If, on the other hand, a damp-proof course was present, and yet it was apparent that water was gaining access to the woodwork, it pointed to the fact that the damp-proof course was defective either through the use of unsuitable material, *e.g.*, a thin bitumen layer which might have become squashed out, or through mechanical damage. In many cases flower-beds were made up to a level above that of the damp-proof course, thereby destroying its effectiveness. Such faults should be remedied immediately on discovery where that was possible, and if the source of dampness was removed, further trouble would be stopped. In such cases it might not be necessary to remove timber, except that which was actually mechanically unsound, although it was wise to take out all which showed any sign of fungus. If, on the other hand, owing to the lack of a damp-proof course, or the presence of some other radical fault, it was impossible to prevent further access of moisture, the only way was to pressure-treat timber to be used in such situations, that was if reconstruction was not possible. In hollow floors lack of ventilation was often the major cause, and attention should be paid to improving this by the insertion of more air bricks so as to ensure a through current of air; it should be stressed, however, that it was only as an aid to drying out the timber that ventilation was of service, and that ventilation with damp air might be worse than no ventilation at all. Another cause of trouble which was sometimes encountered in centrally heated houses was due to faulty heating, resulting in uneven temperatures in different parts of a room; this might lead to condensation of moisture in certain places. The case of a damp external wall due to porosity of the bricks was very difficult to remedy permanently, and although the application of certain waterproofing substances to the wall might afford a temporary cure, it was doubtful whether any of them were permanent in their effect, and treatment had to be repeated from time to time.

Where "Merulius Lacrymans" is Involved.

In cases where *Merulius* was present more drastic remedies were necessary, as drying off the timber was not alone sufficient to ensure immunity from further trouble. The reason for this was due to the capacity of this fungus to transport and manufacture moisture when once it had obtained a sure foothold. This power of transporting moisture was well shown in cases where strands of the fungus might run along brickwork or metal girders, and from them spread on to and attack dry wood many yards distant from the focus of attack. Those strands could also penetrate deeply into mortar and into crevices in the brickwork, and he had come across a case where a 5-ft. thick wall had become permeated by the fungus. In such cases eradication might be an extremely difficult task; indeed, it might prove to be more expensive than demolition and subsequent rebuilding; but this would be an extreme case where the house had been neglected for a considerable period, or where outbreaks had been treated by patching up.

The main points to which attention should be drawn were as follows:—

(1) Trace out the full extent of attack;
(2) Remove all infested timber well beyond this point;
(3) Find out the origin and cause of attack;
(4) Remedy the defects in construction where present, or repair those that may have developed;
(5) Sterilise infected brickwork;
(6) Use only treated timber if it is impossible to ensure the removal of all fungus, as is the case in badly infected thick walls.

After dealing with the question of preservatives, the lecturer spoke on the choice of site and construction in relation to the prevention of dry-rot. It was often stated that such and such a site was a "dry-rot site," by which was meant that outbreaks of dry-rot had

been prevalent in houses in the neighbourhood, and therefore he proposed making a few observations on the question of site in relation to outbreaks of dry-rot. For an outbreak of dry-rot to occur, moisture must be present in the timber—that was, the timber must either be in an unseasoned condition, or, as was more usual, access of moisture had caused rewetting of the timber. Most frequently outbreaks occurred on the ground floor or in basements, and could be traced to moisture arising from the soil. It was therefore obvious that a house built on a well-drained sandy soil would be less liable to outbreaks of dry-rot than one built on a heavy retentive soil such as clay. The slope of the ground had also to be taken into account in this connection. In some riverside dwellings the surrounding land might become flooded and the soil saturated, and thus it could be realised that on such a badly drained site exceptional precautions should be taken in draining it and in preventing access of moisture to the house by providing a thoroughly effective damp-proof course. Dry-rot would often be found to follow roughly certain contour lines which corresponded more or less to such ill-drained ground, and again, it was often thought that dry-rot was prevalent in the soil of certain sites, and suspicion often fell on those which had previously been woodland. There was little foundation for that belief in the case of *Merulius* at any rate, as that fungus was rarely, if ever, found on timber in woodlands. Of course, it was obvious that if a lot of decaying timber was left lying on the ground, or old decaying stumps were left in the ground, a certain risk of local trouble caused by other species of fungi might be experienced, but the risk was not very great. On the other hand, on old building sites the possibility of dry-rot being present on timber embedded in the soil and growing through it could not be ignored.

More often, on investigation, the basis for the opinion that dry-rot was particularly prevalent on a certain site was due to the fact that many of the buildings might have been built at the same period, and all had a common fault in their construction which had led in each case to trouble; or it might be that one house in a row had been neglected, the timbers had been badly attacked and the fungus had spread from house to house along the row. Probably the frequency of serious attacks in new housing schemes was, in the first place, due to low-lying sites being often the only ones available, at any rate at a low price. In such cases, by careful attention to drainage prior to house erection, much could be done to minimise the risk of dry-rot outbreaks.

One of the most important points was that a good damp-proof course be present to cut off the passage of moisture from the soil, and this would often involve both a horizontal and vertical damp-proof course. The damp-proof course must be such that it would not become squashed out by pressure, as might happen where a thin bitumen one was depended upon. Bitumen felt, slate, and blue brick were most commonly employed for damp-proof courses. The damp-proof course was usually placed about 6 in. above the ground level, and trouble was often caused by omission to insert one in sleeper walls. They might also with advantage be put in chimney-stacks to prevent the passage of moisture downwards through porous brickwork. One of the greatest difficulties was to ensure dry exterior walls, as brick was more or less porous, and by treating the exterior wall with an impervious covering the moisture could not escape except inwards. Probably the best method to overcome these difficulties was the cavity wall; in that case care must be taken to see that the cavity at the base did not become filled up with mortar droppings during construction, since if that occurred, and the droppings filled up the cavity to above the level of the damp-proof course, this would render the damp-proof course inoperative by bridging it. Special attention should be paid to affording through ventilation to every part of the floor by providing an adequate number of air-bricks of a type with a large percentage of air-space to its total area. Some of the terra-cotta type used often failed in this respect, and for this reason the metal ones were often preferred.

The best type of floor construction was the well-ventilated hollow floor, and, if full attention was paid to ventilation and damp-proof course no trouble would be experienced. In the best type of construction the joists carrying the floor were not embedded in the brickwork, but rested on a sleeper wall built in honeycomb bond clear of the external wall and also provided with a damp-proof course. The presence of this sleeper wall near the external one was apt to obstruct the free circulation of air, and an improvement on this, which was employed by some architects, was to support the joists on corbels or brackets of blue brick, two bricks thick, built out on the internal side of the wall; these blue bricks also acted as an additional damp-proof course. If the joists were supported by embedding in the brickwork of the external wall, they should be treated under pressure with a preservative or enclosed in a bituminous felt covering. It was advisable, in addition, to provide ventilation by leaving a free passage round the ends. Through ventilation from exterior to exterior should be secured, and in the case of a solid floor next to a hollow one pipes should be run under the solid floor connecting to air-bricks in the exterior wall.

In the case of solid floors the most important point to be borne in mind was that no concrete could be considered as impervious to moisture, and that, therefore, the laying of concrete would not prevent moisture rising through the soil and up through the concrete to the flooring timbers. It was unwise to trust to treatment of the surface of the concrete with patent waterproofing materials, as, although some of these might be quite effective, none of them was permanent. It was therefore important that the upper surface of the concrete should be covered with a layer of bitumen of sufficient thickness to ensure that at no point did the wood touch the concrete. The bitumen should be of good quality and about $\frac{1}{4}$ in. thick. Untreated fillets should never be embedded in the concrete; they should be pressure treated, and in the absence of bitumen floorboards should also be treated. The most satisfactory type of solid floor was that in which pressure-treated fillets were laid in the concrete and the whole covered with a continuous and adequately thick bituminous layer. Even in such cases it was advisable to leave the flooring uncovered until sufficient time had elapsed for the drying out of the whole.

LAW REPORT

KING'S BENCH DIVISION.
Before MR. JUSTICE GREAVES-LORD.

ACTION BY ARCHITECT FOR FEES.

Madley v. Thorne.

This was an action by Mr. Bertram Eric Madley, an architect, of 14, Cheverton-gardens, Highgate, N., to recover from the defendant, Mr. Harold Thorne, 52, Grosvenor-street, W., £20 7s., balance of salary, and also a proportion of fees to be assessed in conformity with the scale of the Royal Institute of British Architects.

The plaintiff's case was that by a verbal agreement of September 28, 1933, made between him and a Mr. J. E. Smart, acting on behalf of the defendant, it was agreed that in consideration of plaintiff becoming architect to the defendant and giving his whole time to the interests of defendant in connection with a building scheme at Watford, the defendant would pay plaintiff £5 weekly as a retaining fee, and in addition to out-of-pocket expenses plaintiff was to be entitled, as architect, to his professional charges in accordance with the scale of the R.I.B.A. The plaintiff alleged that he rendered these services until March 3, 1934, the defendant having terminated the agreement by one week's notice on February 24, 1934.

The defence was a denial that defendant had agreed to pay the plaintiff anything in respect of fees.

Mr. Madley, the plaintiff, gave evidence in support of his case, and in cross-examination said he claimed under the agreement a retaining fee of £5 a week, plus his fee for the professional work he did. He could not recollect whether the words "retaining fee" were ever mentioned before the action was brought. He did not know that the defendant had only an option to purchase the land on which he proposed to build at the time of the agreement. He agreed that for a young man a retaining fee of £5 a week and plus scale fees was a good thing for him.

In reply to the Judge, Mr. Madley said he was not endeavouring to get some other employment after he got the defendant's letter of October 9.

In further cross-examination, Mr. Madley agreed that week by week he gave a receipt for the £5, and had made no complaint that the word "salary" was used on receipts, and he did not bother about the words "retaining fee" not being used. He did not agree that he was not entitled to the sums he was claiming on the ground that he was paid a salary. The work he did for the defendant was successful, so far as he was concerned. The plans were never finally accepted by the Borough Council.

Evidence having been given by the defendant that he had never agreed to pay fees to the plaintiff,

His Lordship, in giving judgment, said he regretted the decision he felt compelled to arrive at because he thought that Mr. Madley had been badly treated. Mr. Madley suffered from an error that was not confined to youth, because there were older people who thought that the use of the word "Architect" was sufficient to give them the scale fees mentioned. Mr. Madley was perfectly willing to take the contract because it had the word "Architect" in it. He was satisfied that Mr. Madley was encouraged to look for a considerable sum in the future, but, unfortunately, he was so glad to get the contract and so certain that the word "Architect" would give him everything he wanted that he did not trouble to make inquiries as to what the further amount would be. Mr. Madley thought that the use of the word "Architect" in the document was sufficient, but, unfortunately, it was not, and that part of the claim failed. Mr. Madley, however, was entitled to judgment for £20 7s. on his claim for balance of salary.

Counsel for Mr. Thorne asked for the costs of the issue on which he had succeeded, but his Lordship said he would grant no costs.

Mr. P. C. Lamb appeared for the plaintiff, and Mr. E. Wetton for the defendant.

Exhibition of International Architecture.

The recent Exhibition of International Architecture held during the Centenary of the R.I.B.A. is to begin a tour of provincial centres by being opened at the Manchester Art Gallery by Sir Josiah Stamp on Friday, April 5. It will then be transferred to the Walker Art Gallery, Liverpool, early in May, and will be open to the public there from the middle of May to the end of June. After Liverpool it will probably be shown at Birmingham Municipal Art Gallery, and then at Hull Municipal Museum; the dates of these are not yet settled. Applications have been received from other towns, and dates are in process of being arranged. The exhibitions at Manchester, Liverpool, Birmingham and Hull will be the full R.I.B.A. Centenary Exhibition, consisting of some 800 photographs and 30 models. A new section of some 30 photographs will, however, be added, illustrating the new building of the R.I.B.A. in Portland-place.

THE PROPERTIES OF BRICKS

IN RELATION TO PROCESSES OF MANUFACTURE.

We conclude from our last issue the report of the last of a series of six technical lectures organised by and held at the Building Centre, delivered on February 28 by Mr. Zaiman, entitled "Properties of Bricks in Relation to Processes of Manufacture."

A few typical examples of strength are given below, together with the order of variability encountered with different types :—

Order of Crushing Strength. Brick.	Stress lb/in².
Blue Stafford Pressed	15,790
Cattybrook Red Blue Wire Cut	13,820
Fletton (Phorpres)	4,340
Leicester Red	3,920
Fletton	2,750
London Stocks	1,890

Order of Variability. Brick.	Variation per cent.
Leicester Red Wire-Cut	7.2
Fletton	7.4
Cattybrook	7.6
Blue Stafford	11.2
Stocks	27.9

Order of Pier Strengths. Brick	Stress lb/in².
Blue Stafford Pressed	3,180
Cattybrook	2,840
Phorpres Fletton	1,465
Fletton	1,070
Stocks	803

Tests on small scale walls showed, as would be expected, that, providing bricks of varying strengths are uniformly distributed in a wall, the strength of the wall depends on the average strength of the bricks.

Durability.

I have referred to the question of the durability of bricks, and I have emphasised earlier that it is not possible to consider a single laboratory test for durability. The Building Research Station practice is to conduct tests on various physical properties that are thought to influence durability. A summary of results of tests for moisture expansion, moisture absorption, permeability, resistance to wear and freezing are included in an appendix to the report to which I have already referred.* No definite conclusions can be drawn from them, and much further work remains to be done, for example, on lines inferred from the Building Research Station "cemetery" test.

At stated earlier, however, most well-burnt bricks are durable, and it is only in exceptional cases, such as for bricks below damp-proof course level, that special care in selection is necessary. Colours achieved by surface sands are usually sufficiently lasting, even though the depth of the colouring is not very great.

Laminations and Cracks.

It is common knowledge that the air which normally fills the voids between the clay particles is not all worked out by puffing, grinding or pressing, and that the air is responsible for certain defects, such as laminations and cracks. Attempts are being made in the United States of America and in Germany, and to some extent in Great Britain, to cure these defects by de-airing the clay, both in the semi-dry process and the semi-plastic process. In the former it has been shown to be practicable to remove the air by subjecting the clay to repeated pressures, by evacuating the mould box, or by saturating the loose clay with a gas which will be either condensed under the growing pressure, absorbed by the clay grains, or dissolved chemically by the water film surrounding the clay grains. Of these methods, the first only has been applied commercially to date.

Recently success has been achieved in de-airing plastic clays by evacuating the air from them by means of a suction pump fitted to the pugging chamber. The device has been marketed and adopted by several important firms. It is claimed that the working properties are improved, lamination reduced, plastic strength increased, drying behaviour improved and firing range lengthened. In practice, however, not all these claims are being substantiated. Trouble has been experienced, particularly in drying, some bricks being badly checked, necessitating a careful revision of the whole operating schedule.

The actual effect of de-airing is not too clear. It probably induces a closer packing of the grains, and the virtues claimed are derivable from this packing. If this is so, then any other mechanism, whether it be mere grading of the constituents or special pressing, should give the same beneficial result.

A simple method of de-airing, other than by vacuum, has also been tried in the United States. It consists in principle of altering the design of the auger blades and pug with knives so that air is not worked into the clay mass during the tempering.

Efflorescence.

Probably the most troublesome defect in some bricks is their liability to efflorescence. This is, of course, to be distinguished from the brown discolouration known as "scumming," which may occur during the drying process or during the firing, and which is sometimes avoidable by adding barium carbonate, for example, as a suspension in the tempering water. Efflorescence implies the crystallisation of soluble salts on the surface of the brick, and is a sporadic phenomenon, occurring just in odd patches. It is often harmless, but is very unsightly until it has been washed off by rain or otherwise removed.

There is now an extensive literature on the subject of efflorescence and its causes. We know all about it, what it is and what it does, but the question of prevention is a much more difficult matter. There are two predominant factors : physical structure and chemical content. The first factor may be described as the texture, or more specifically as the size, character and arrangement of the pores. The chemical content relates to the salts, mainly sulphates, alkalis such as calcium, potassium and magnesium, which are soluble in water, and so may be transferred from point to point, and which crystallise whenever conditions suit them. These two factors of texture and chemical content may act together or they may act in opposition. Thus some bricks containing more soluble salts than others are less seriously affected by them by virtue of a better adapted pore structure. Only a few bricks in a large batch may exhibit efflorescence, and the control necessary to preclude the few raises issues of far-reaching importance. I will return to this point later.

Minor Defects Wrongly Attributed to the Brick.

Efflorescence may arise from causes external to the brick, for example from the mortar used, or from other materials in contact, such as plaster or rendering, or the soil. Another defect sometimes wrongly attributed to the brick is the hollowing of the surface, a sort of cupping-out which occasionally happens when an old wall is repointed. This has been shown by the Building Research Station to be due to the use of a hard, impervious cement mortar to replace the original soft, porous lime mortar which used to act as a safety valve for the release of any injurious matter from the brick or surrounding structure. The selection of the right type of mortar for different types of bricks is an important matter, and reference should be made to the recommendation on the subject recently issued by the Bureau of Standards, U.S.A.

Control of Variability.

I now come to the question of whether it is possible by any simple means to control the variability in bricks. What I have tried to show in this general review of the properties of bricks is that, despite the wide margin allowable in the processes of ordinary brick manufacture—and you will have seen from what I have said that there is a tremendous diversity in the way these things are made—the defects are singularly few. But if it is found desirable to prevent these defects, the question arises as to what practicable method there is. I have already pointed out that if you left it to the scientist, and he tried to lay down, from his inadequate present knowledge, the limits of the various properties, brick making would no longer be a commercial proposition; instead of being a straightforward natural process it would become a heavy chemical process, and the bricks would be far too expensive. That method is obviously ruled out. The next method one might consider is the possibility of a British Standard Specification. I think, however, it will be clear, from what I have said about the properties we require from bricks and about the tests which we have with which to attempt to measure those properties, that we are not in a position to attempt to frame a Standard Specification which would be otherwise than meaningless and erratic. So far as our present state of knowledge goes, it is really essential to consider each locality and each process of manufacture on its own merits, individually. This suggests as a practicable method of attempting to control variability what is known as the "Mark" method of specification. Under this method, all that really happens in essence is that the manufacturer guarantees that his product conforms to his own standards. There are certain limits which one can lay down. One can examine a manufacturer's own bricks and one can decide on the limits of soluble salts, porosity and everything else that affects those bricks as to what standard he is maintaining. The suggestion is that each maker should work to his own limits. Consignments of bricks would then be sold under the manufacturer's warranty that they conformed to certain requirements as to uniformity or grading, were free from certain deleterious properties or defects, and were within the stated limits in respect of strength, colour, size, etc. It seems to me that that simple method of leaving it to the manufacturer to state precisely what he can work to within his own limits holds promise for removing what I consider to be the only real technical criticism which can be made of brick as a material.

[The lecturer then showed a number of slides illustrating the points brought out in his lecture. The first series showed examples of the coloured bricks used in America, the effect of using black mortar joints and squeezed-out mortar joints (the architect specifying the exact degree of squeezing out which he required in certain spots), the effect of laying ordinary bricks at various angles and of using cracked, misshapen bricks, once the refuse of the brickyard.

The next few slides related to the effects of the capillary properties of bricks, which, he said, constituted a difficult problem. The pores of a brick varied over the brick itself, depending on its position in the kiln and the contact it had with other bricks. The place where a brick was touched by another brick in the kiln was often called a "kiss mark," and on a frosty morning ice might be found on the surface of those parts of the brick alone, and showed that moisture was sucked out at those spots only and left on the surface and had frozen there. That might indicate why one found efflorescence spread so curiously over brickwork in a patchy manner. Even in the case of a simple thing such as the deposit of frost crystals there was an extraordinary variation over the surface of a brick, which might be due to the fact that at the "kiss marks" the texture was closer, the pores were finer, and therefore there was a bigger suction on any water present there, which would draw it to the surface.

Another slide showed an exposure wall at the Building Research Station which was

* Building Research Special Report No. 22, "Mechanical Properties of Bricks and Brickwork Masonry." H.M. Stationery Office, Kingsway. 1s. 3d.

used to test the effect of different kinds of mortar with different kinds of brick. A great deal was learned from it, because it was found that the specially designed mortars which were supposed to stop efflorescence really gave the worst results. The efflorescence shown was harmless, but unsightly. There were types of efflorescence, however, which were not harmless, and he illustrated such a type, due to magnesium sulphate. A whole row of cottages in which bricks of that type were used had to be rebuilt; after they had been standing for six months one could stick a knife into the wall, and it would go in up to the hilt. Magnesium sulphate efflorescence was probably the most serious thing to be considered in connection with bricks, but fortunately it was very rare and with care could be prevented.

One of the most difficult of present problems in connection with bricks, he said, was to discover a proper rendering or stucco to be used over brickwork, and the selection of the right brick with the right stucco; and he showed several examples of the troubles which might be experienced in that regard.]

Questions and Discussion.

The Chairman (Mr. J. R. Leathart, F.R.I.B.A.), in referring to the last slides shown, asked if the lecturer could indicate a suitable stucco, a suitable brick, and a suitable mortar for use together. He had been told, he said, that London stock brick and lime mortar was the best backing for cement stucco, and asked if there was reason to suppose that that was sound advice.

The lecturer said the whole question of rendering was one of extraordinary difficulty, because he did not think a decision had yet been reached as to what was really wanted from a rendering. If it should be something which was impermeable to moisture, then if a crack appeared in it any moisture would go through that crack and there would be serious local trouble; on the other hand, if it were something more like blotting paper the moisture would be spread over the whole surface, and if any got through to the wall it would be so slight in amount that the wall could easily deal with it.

Of recent years the Germans and Swiss had been very successful in their rendering as contrasted with this country, and many efforts had been made to find out the reason. Ten years ago they were no more successful than ourselves, and their technicians were unable to explain the cause of the improvement. The materials they used seemed to be much the same as those employed in this country, although possibly their renderings were softer; they very rarely went in for a hard cement rendering. The treatments were durable and the colours permanent. They had, of course, a better atmosphere than was usual in large English cities. It might be worth while for the Building Research Station to get some of the actual German workmen over here with their materials and watch what they did with them. The problem was a serious one, and had not so far been solved.

When building his own house he used the latest form of rendering recommended by the Building Research Station, a mixture of Portland cement and hydrolime. It gave a nice, creamy texture to the outside of the building, but he was not sure that it was satisfactory as a preventative of damp. There was no question of the surface coming off and the colour being different underneath, but his house was very exposed to the south-west, and in one corner there was a spot of damp.

Replying to further questions, the lecturer pointed out that a 9-in. solid brick wall, and even one of 13½ in., with ordinary rendering, was not entirely damp proof; in very exposed positions and with driving rain water would come through. The remedy was cavity construction with an unknown quantity in the duration of the ties. Pending the discovery of a good rendering, he was convinced that the only solution was cavity walling.

The Chairman, commenting on the reference to the porosity of 9-in. brickwork, mentioned that the Singer Building in New York, which was 57 stories high, had 9-in. brickwork on all sides, and there had never been a drop of moisture through the walls, simply because an impermeable surface had been interposed on the inner surface of the wall before plastering. He himself had used that method with success at Southport.

The lecturer said it was not a method which he would at all recommend; the trouble was that if the damp did come through one had not the least idea where it had come from. The damp worked its way round. If the use of bituminous paint in that way worked satisfactorily it was all right, but if it let one down it let one down badly. He did not agree, however, with another speaker who suggested it might tend to rot the brickwork.

He agreed generally with a speaker who mentioned that to avoid crazing it was necessary to use a soft covering, and to avoid weathering, a hard one, so that it was difficult to find the right material. If it set hard and quickly there were initial stresses which the material could not take care of, so that crazing took place; if it set slowly it would not keep the weather out so well. If painted stucco succeeded—and the houses round Regent's Park were referred to by a speaker as an example of this—he thought it must be on account of the paint.

The Chairman suggested that the more impermeable and the harder the brick the greater was the risk of cracking in the stucco face; a soft brick such as London stock gave greater flexibility. Possibly the Regent's Park buildings were built of London stock. Portland cement could not have been used, because it had not been invented. He had tried Portland cement rendering on London stock set in Portland cement, which was afterwards painted, with satisfactory results; the crazing was not anything like that usually found where a harder brick was used. He asked whether the Building Research Station had any views on the matter.

The lecturer said they had not got so far as that. Even on the question of mortars the best recommendations so far were those of the U.S. Bureau of Standards. On the question of the use of soft or hard bricks, he said he did not think there was any movement in brickwork of dimensions worth worrying about.

A speaker said that the question of crazing had received a good deal of attention at the Building Reasearch Station in relation to cast concrete products. Where there was initial and perhaps almost inevitable incipient crazing one had a very dangerous state of affairs, in that the water could enter but was not likely to be evaporated.

The lecturer agreed, for that was why he preferred a porous rendering. The moisture could then evaporate out freely, but if it went into a crack and got behind and could not get away it leaked into the brick and gave rise to many troubles.

Replying to other questions, he said it was not possible in general terms to give any figures on the desirable moisture absorption of bricks; each type of brick must be considered on its merits. He agreed that the absorption values for bricks sometimes given in books were meaningless, and added that in the Report of the Building Research Station on the mechanical properties of bricks there was a table giving a complete summary of all the tests the Station had carried out on all types of bricks, but one had to be careful in drawing any conclusions from them. In general, he thought there was no need to worry; after all, not many troubles were experienced with bricks, although he admitted that efflorescence could be very unsightly. If the Building Research Station were to say to a manufacturer, "The proper limits of porosity or pore size for your bricks is from X to Y, and you should not go outside that," what could the manufacturer do in the present state of knowledge? Brick was a traditional material which had been made for thousands of years; it had an overall series of virtues, but a few snags. To correct those snags might mean reconsidering every item in the process of manufacture, and would be a gigantic task. The simplest thing was for each manufacturer to say, "Here is my product; have it tested, and then you will know the limits to which it conforms," and then for him to guarantee always to supply his stuff to that standard.

A member of the audience asked whether, if manufacturers reached the stage of giving this fine sixteenth century quality, they would also be able to advise what mortar should be used, according to the standard specification of the brick.

A manufacturer who was present said his firm did, whenever they dared, suggest that a lime or compo-lime mortar was preferable to a hard, impervious cement mortar. During the last few days the L.C.C. had agreed to amend their new code of permissible pressures on brickwork to include compo-lime mortars, which were increasingly used, because certain brick manufacturers and the Building Research Station felt that to be a better mortar. Restrictions had been imposed up to the present by certain by-laws which had not been changed for a great many years. The question of the thickness of brick walling was also to be reconsidered.

A speaker expressed the hope that the new British Standard Specification for lime mortars would be published at an early date. At present, he said, a lime mortar might be anything, but the Standard Specification would make it a more reliable material.

The lecturer said the problem was a difficult one. When weak bricks were built in strong mortar, it was the strength of the brick which affected the strength of the pier; when strong bricks were built in soft mortar, it was the strength of the mortar which affected the strength of the pier. One had, therefore, to be careful in drawing conclusions.

On the question of the use of a waterproofing mortar, he said that there were water-repelling mortars, which threw off some of the water which might otherwise get through the crack between the brick and the mortar, but the essential thing was to cover the gap between the two, and a waterproofing treatment was successful only if it covered that very fine fissure. Periodical spraying tests at the Building Research Station showed that the water always got through the vertical mortar joints first. If a water-repellent cement were used, there would be less water available to go through that fine fissure, but the problem would be only partly solved. He agreed that it was desirable that the capillary properties of the brick and the mortar should be identical.

Asked whether bricks made in one part of the country and used in another would stand as well as those made in the district in which they were used, he said he did not think there could be any question at all about the permanence of building bricks; the same bricks would be equally satisfactory whether used at John o' Groats or Lands End.

On the motion of the Chairman, a cordial vote of thanks was accorded to the lecturer, and, on the motion of Mr. F. R. Yerbury, a cordial vote of thanks was accorded to Mr. Leathart for presiding.

Building in China.

The 10th edition of the "China Architects' and Builders' Compendium" (North China Daily News and Herald, Ltd., Shanghai, $2.50 U.S currency) indicates that there has been a sharp recovery in confidence in the future of Shanghai during the past year, as shown by the increasing application for building permits and by the estimated value of new buildings for which permits were issued during 1933. In both cases an increase of about 15 per cent. is to be recorded. Problems connected with the out side roads still remain unsettled, thus tending to maintain or increase land and building values within the Foreign Settlements. An important addition to this year's Compendium (which is edited by Mr. J. T. W. Brooke, A.R.I.B.A., and Mr. R. W. Davis) is the inclusion of the Provisional Building Rules of the City Government of Greater Shanghai, which add greatly to the value of the Compendium and make it a complete and up-to-date work of local reference.

ARBITRATION IN BUILDING DISPUTES—X.

By W. T. CRESWELL, K.C.

THE AWARD.

WHERE the architect's decision is to be binding in all matters arising under the building contract and his final certificate is not reviewable by arbitration, then it is not an award, although he is a *quasi*-arbitrator.

And where the contract gives both employer and contractor power to question the architect's final certificate, and to have it judicially inquired into and reviewed by arbitration, such a certificate is also not an award, nor is it binding. See Robins *v.* Goddard (1905), 1 K.B. 294.

Some building contracts which contain an arbitration clause provide that the architect's certificate or the award of the arbitrator (if it has been necessary to have recourse to arbitration in any dispute which has arisen) shall be a condition precedent to payment. In these circumstances it is evident that if there has been recourse to arbitration the arbitrator's award is a condition precedent to payment.

Framing the Award.

In framing the award, the arbitrator is reminded that, under the Acts, his decisions are, in general, final and binding on the parties; his aim should therefore be to make the intention of his award clear and decisive; giving in it sufficient detail and explanation to satisfy all the parties. And, whilst it should contain all necessary directions for its proper performance, these directions must be reasonable and possible of performance.

As previously stated, although under the Arbitration Act of 1934 no arbitrator may order specific performance of any contract relating to land or any interest in land, and the arbitrator, therefore, cannot transfer property, he can, however, direct what the nature of a conveyance of land is to be, and who is to make and who is to pay for the conveyance. Moreover, the parties can expressly agree, in the arbitration agreement, that the arbitrator shall decide who has the right to certain land. By this restriction the interests of a stranger (*i.e.*, a person not one of the parties) are safeguarded.

The award cannot, for example, direct that either of the parties can enter on the land of another person and perform some act, because that would be giving permission to trespass, which is outside the arbitrator's jurisdiction.

It is not necessary to use special or technical terms in framing the award. It is sufficient if the arbitrator's meaning and intention is clear and decisive. See Whitehead *v.* Tattersall (1834), 1 A. & E. 491.

The award need not—though it usually does—contain any recitals. Those usually included are those already set forth in the submission giving the particulars of the order, agreement or deed under which the arbitration arises, and the recitals of the precise disputes between the parties with which the arbitration is concerned.

A mis-recital does not necessarily make the award bad: the obvious facts themselves usually correct any such error.

The award may embody maps or other documents; but collateral documents, not attached to, or referred to, in the award, cannot form part of it. See Produce Brokers' Co., Ltd., *v.* Olympic Oil and Cake Co., Ltd. (1916), 2 K.B. 296.

Form of Award.

The award should deal with each of the matters in dispute separately, numbering each consecutively. If the framer of the award uses the words "I award," "I direct" and "I determine," and confines the text to what would naturally follow on the use of such words, he is not likely to go wrong or to introduce matters which are not decisive or clear. In Lock *v.* Vulliamy (1833), 1 B. & A. 600, the arbitrator wrote: 'To meet the circumstances of the case in a liberal manner *I propose* that B should pay A £10." It was held that this was not the phraseology of an award, for there was no decision expressed, but merely a recommendation, and that the document was not binding. The following is a very general form of award:—

IN THE MATTER OF THE ARBITRATION ACTS, 1889 TO 1934,
AND
IN THE MATTER OF AN ARBITRATION

Between

..... Applicant.

and

..... Respondent.

Whereas by an agreement in writing, dated the ..... day of ....., 19..., and made between A. B., of ....., of the one part, and C. D., of ....., of the other part, it was agreed that all matters in dispute between the said A. B. and C. D., in reference to (*state the terms of the arbitrator's agreement*) should be referred to the award and final determination of me, E F., of ..... And whereas it was further agreed (*set out any special provisions of the arbitration agreement*).

Now I, the said arbitrator, do award and finally determine as follows:—

(*Set out the award, numbering each decision consecutively.*)

In witness whereof I have hereunto set my hand this ..... day of ....., 19.....

(Signed) E. F.

Signed and published this ..... day of ..... 19..., in the presence of

G. H. (*Witness*).

INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

***We do not undertake to reply to inquiries concerning proprietary materials.*—ED.**

We shall be obliged if readers will write clearly and, if sketches are enclosed, will draw them in a manner suitable for reproduction.

QUESTIONS.

Acquisition of Freehold.

SIR,—Am I right in believing that under the Law of Property Act, 1925, the owner of leasehold property can compel the ground landlord to sell the freehold, and, if so, upon what basis? H. J.

Inaccurate Official Data: Question of Extra.

SIR,—We have an interesting point on which we should very much like a ruling. When estimating for a new building, we got in touch with the local council with a view to finding out the depth of the existing sewer to enable us to price this work; we were informed that the sewer was between 5 ft. and 6 ft. down, to which data we worked. When we opened up the road it was necessary for us to go down 15 ft. to find sewer, and had trouble with water at 12 ft. Are we entitled to an extra on this work through being wrongly informed? J. L. C.

Design for a Swimming Pool.

SIR,—I wonder if you or any of your readers can give me some advice with regard to the design, construction and cost of an inexpensive bathing pool for a small village? A small stream is available, but is altogether too shallow for bathing. The scheme sketched has been suggested. Is it practical? Can you suggest a better or cheaper scheme?

B. G. H.

[The scheme as sketched shows a concrete pool 6 ft. deep at one end and 2½ ft. at the other, constructed at an angle to the bank. Inflow is arranged for at the deep or upstream end, and the sketch shows entry at the bottom of the end wall, which is suspended. Between the pool and the stream a weed rack has been placed. At the shallow end a canal has been placed to carry the overflow back to the stream. At this end an adjustable hatch has been placed.—EDITOR.]

ANSWERS.

Liability for Repair After Expiry of Maintenance Term.

[ANSWERS TO "SPAR," MARCH 8.]

SIR,—If, as is stated, the maintenance period was satisfactorily completed, and the architect's final certificate given, then there does not appear to be any liability attaching to "Spar." A good deal depends, of course, on the terms of the contract. If, for instance, it contained an arbitration clause, this may be found to make the final certificate of the architect reviewable by arbitration. "Spar" should take legal advice if the claim is persisted in. LEX.

SIR,—A builder cannot be held liable for damp spots which appear after the maintenance term is up. In the present instance the dampness has not shown itself for a considerable time, so it cannot be put down wholly, if at all, to defective construction. As the building was put up under an architect's supervision, his opinion as to the workmanship would rank before that of a surveyor who was called in after the damp appeared.

W. E. W.

SIR,—The builder of a property is certainly not liable for any defect developing after a period of 5½ years; in fact, after the six months' maintenance period he is released—otherwise there need be no mention of time. Furthermore, if the house was built under a well-known architect, and his final certificate obtained, it is quite clear that the architect was satisfied, and, being the owner's representative and acting for him, he has by the issue of such certificate automatically cleared the builder of all responsibility.

R. H. W.

Conversion of Building: Rights of Light.

[ANSWER TO "E. D.," MARCH 8.]

SIR,—If, as appears, "A" has acquired a right of lights to the windows of his workshop which overlooks "B's" property, he is entitled to leave his windows where they are in the new scheme. Furthermore, if "B" interferes with the access of light thereto, so as to amount to a nuisance, that is actionable.

While "A" can open any number of windows overlooking "B's" property, or increase the size of those now existing, "B" can put up erections on his own land and obstruct the light which would reach these additional windows or those windows increased in size in so far as they are, in fact, increased in size. "A" is only entitled in respect to his easement of light to the existing windows to such light as is ordinarily fit for the requirements of mankind, and no more. LEX.

Fletton Bricks as Facings.

[ANSWER TO "E. L.," MARCH 1.]

SIR,—We have used the "Rustic" bricks on several buildings. We recently designed a house for Miss Gracie Fields at Frognal Way, Hampstead, and the whole of the facings were in "Rustic Flettons" colour washed, and our client was very pleased with them. On other jobs we have not coloured the bricks, but pointed same with an "Atlas White" joint, and the effect is very pleasing. We find the bricks weather splendidly and the sea air does not seem to affect them like other bricks. If we can give you any further information we shall be pleased to hear from you.

TOMKINS, HOMER AND LEY.

Empire Exhibition, South Africa.

An Empire Exhibition will be held in South Africa from September, 1936, to January, 1937. Invitations to participate have been sent to the various Governments of the British Commonwealth, and commercial exhibits from all parts of the Empire will be accepted. The London office is at 21, Tothill-street, S.W.1. The site will be in Johannesburg, in the showgrounds of the Witwatersrand Agricultural Society. Latest returns of imports show that out of a total of £46 millions, 59 per cent. is imported from Empire sources.

THE BUILDING TRADE

HOUSE DRAINAGE AND SANITARY PLUMBING—XI

By J. R. TAYLOR.

PIPE LINES (*continued*).

We have already dealt with a number of points which a designer must take into consideration when deciding how and where his piping shall run, but it will be convenient to the student to group some of the regulations that will govern him. In the majority of cases he will have to face the problem of connecting up to a number of scattered fitments in the positioning of which he will have little or no voice. We hope later to set out diagrammatically the drains and pipe lines for a small house, and meanwhile may consider some limitations to which we must conform. We will take as typical a four-bedroom house having a lavatory basin in each of these rooms. A bathroom on the bedroom floor, with bath and lavatory bowl, and a water-closet separately enclosed, will complete the upstairs requirements. On the ground floor we may expect another water-closet, a lavatory basin, and at least one sink. Over the greater part of England and Wales we should contentedly turn most of the waste water into rain-pipe heads, but that will not serve our present purpose, and we therefore assume that our installation must comply with the requirements of the L.C.C. by-laws. We will further assume that in general it is required that the one-pipe system should be used.

Drain Ventilation.

To comply with the requirements as to ventilation of drains is not a difficult matter. If the by-laws require an interceptor to be fixed, two ventilating shafts must be provided—one to admit air and the other to discharge it. In regard to the inlet ventilator, the L.C.C. by-law mentions a pipe, but many sanitary engineers, when dealing with detached houses lying well back from the road, prefer to use a perforated cover on the intercepting chamber; and provided a dirt-collecting pan is fixed under the cover, this method has practical advantages, and the writer considers it sound. The L.C.C. by-law makes no mention of the mica flap valve, but stipulates that all ventilating pipes shall be carried up to such a height and position as to prevent "any nuisance or injury or danger to health arising from the emission of foul air from such pipe."

The extract shaft (upcast ventilator) is required to be fixed as far away as is practicable from the sewer. The words practicable and impracticable are to be found in a number of the by-laws, and they illustrate the difficulty of drafting. But on the one-pipe system the designer will find no difficulty in providing a suitably placed upcast ventilating shaft, at all events under the circumstances set out. A soil pipe carried up without any diminution of its bore will, if suitably placed, meet the requirement of an upcast shaft. A waste-water pipe of adequate diameter, connected directly to the drain will, if carried up, also meet the requirement, and if two fittings are connected to a waste pipe, and they be on different floors, then the main waste pipe must be carried up. It would, therefore, seldom be necessary to carry up a separate upcast shaft solely for the purpose of ventilating the drain. A drain-ventilating shaft must have an internal diameter of not less than three inches, must be without unnecessary bends and angles, and must have at the foot a suitable airtight access cap or cover. A soil pipe must be of not less than three-inches internal diameter, and must, whether it serve one or a number of fitments, be carried up without diminution of diameter. That is to say, that though a three-inch soil-pipe carried up would, if suitably placed, comply with the by-law, a four-inch soil-pipe may not in its upper part be diminished to three inches. At one time opinion was strongly divided as to the desirability of trapping soil-pipes at the foot, and, very rarely, this is still specified. No one would, of course, trap a ventilating shaft, but it is laid down that neither soil-pipe nor ventilating pipes shall be so trapped. The writer has, however, come across several cases where intercepting chambers have been formed close up to soil-pipes without the provision of a fresh-air inlet, and frequently has found running traps on long drains. It hardly needs saying that this is bad practice.

Waste Pipe Ventilation.

L.C.C. By-law 10 requires that where any waste pipe receives the discharge from two or more fitments fixed on different stories of a building it shall be constructed in the manner prescribed for soil and ventilating pipes—that is to say, it shall be carried up. This raises some very important considerations for the designer, for while he is constrained so to carry the pipe up, he has much freedom of choice in other directions. Ventilation and trapping have to be taken together in order to come to a proper decision as to which method will best meet the circumstances in individual cases. It must first of all be noted that though the L.C.C. by-laws will not permit waste pipes to discharge into hopper heads or rainwater gutters, the discharge in pipes carrying off rainwater is permitted, subject to certain conditions. Rainwater pipes receiving waste water must be constructed in a similar manner to waste pipes. But the most important point is the position of entry of the rainwater; this must be so constructed and situated as to prevent any nuisance or danger to health arising from the emission of foul air. It is not at all difficult to see that on occasion the rainwater pipe and a bedroom lavatory basin may be so placed as to comply with the by-law and at the same time simplify the plumbing. This does, however, require consideration from the point of view of preservation of the trap seal. A full-bore discharge during a rainstorm would exert a strong syphonic pull on the lavatory waste-pipe trap, and in this case the upper part of the rainwater pipe could not act as a ventilating pipe. But the fitting of a special trap definitely resistant to syphonic pull would provide a way out of this difficulty, and at less cost than the fitting of a puff pipe. It should also be noted that L.C.C. By-law 10 does not, as is sometimes supposed, definitely condemn the use of puff pipes, nor require the use of trap ventilating pipes. What it does require is that where the final discharge is over a gully, ventilating pipes shall be used where they are necessary for the preservation of the trap seal. If there is only a single fitment attached to the waste pipe, and a ventilating pipe is necessary for the preservation of the seal, then the ventilating pipe must terminate in such a position as not to cause a nuisance or be dangerous. Whether such danger does or does not exist in individual cases is not a matter to be determined by prejudice but by facts. But though we may disagree with the ruling of a sanitary inspector on such points, it rarely pays to do more than enter a gentle protest. If there are two or more fitments on different stories, and ventilating piping is necessary for the protection of the trap seals, then By-law 10, section 1, para. *e* does require that the ventilating pipe shall be carried up. But by reason of the waste discharging over a gully the prescribed minimum trap seal will be one and a half inch, not three. The designer still has one other choice; he may dispense with the gully and connect up on the one-pipe system—that is to say, directly to the drain. Then he must use traps having three inches of seal, ventilate them, and carry the ventilating pipe up. It should be clearly understood that by doing this he is not committed to using the one-pipe system throughout his installation.

Anti-syphonage Traps.

We should certainly lay ourselves open to the charge of dealing inadequately with our subject if we shirked the issue of the suitability or otherwise of the anti-syphonage or resealing trap. There are now a number of different patterns of these, marketed by patentees and manufacturers, and we therefore make reference to them in general terms. As to their respective merits and demerits, readers must form their own opinions. In America, resealing traps have been in use for many years, but the Building Code (Plumbing) committee did not report very favourably upon them, damning them with faint praise. In this they overrode the opinions of those members who conducted that part of the research work more directly concerned with the subject of syphonage. Messrs. R. B. Hunter and L. W. Snyder, of the Bureau of Standards, formed a much more favourable opinion, and stated that as the result of tests, they believed there was a field in which a judicious use of the better types of resealing traps would be found a distinct advantage. Their report was prepared more than ten years ago, and was based on tests applied to American traps which were not nearly so good as those since produced by British inventors and manufacturers, and which have found much favour here and abroad. No anti-syphonage trap yet produced would be safe against back pressure if strongly developed in a one-pipe installation; but the best types are definitely more resistant to back pressure than plain traps of the same nominal depth of seal. It is claimed for some of them, and the claim has substance, that they cannot be unsealed by syphonic pull. On the other hand, the departure from standard that makes for resistance to syphonage leads to some extent to earlier fouling. In this, as in everything else that has to do with building, we have to set off merits in one direction against demerits in another, and strike a balance. In the writer's opinion, on the dual system good resealing traps are economical and satisfactory. On the one-pipe system they would not be safe without a pressure release pipe.

Accessibility.

The American committee, when pointing to the adequacy of a three-inch soil pipe for the smaller installations, gave it as a merit that it could be more easily enclosed in partition walls than a pipe of larger diameter. So to enclose soil pipes cannot be regarded as good practice. To put them in a narrow chace and cover them with a screwed-on casing is only one degree better. Yet to have piping straggling about all the walls of a house would be intolerable. The apartments in which piping may show with least offence are the water closet and the scullery. These are the apartments also in which the noise of descending discharge will cause the minimum amount of annoyance. The advantages of placing the upstairs water closet over that on the ground floor, and the bathroom over the scullery, are, from the plumbing standpoint, obvious. If this is accepted as the key to the general planning, the greater part of the domestic hot and cold service pipes may travel in the same runs. The water closet apartments might with advantage be made rather wider than is usual, say, four feet instead of three. This would permit of piping being led up and down on both walls without unduly cramping the user.

Our proposed house is now beginning to take shape. It will have a bathroom and a water closet on an outer wall, placed between the two smaller or back bedrooms, with the scullery below. We shall thus group three if not four lavatory basins, a bath, a sink and two water closets, and connect them up on the one-pipe system if desired, though we should personally prefer the sink to discharge into a gully. The two front bedroom basins will not be on the one-pipe system unless our imaginary architect or client stipulates that they shall, and in that case we should probably carry the ventilating pipe in the roof space.

CLERK OF WORKS ASSOCIATION

ANNUAL DINNER.

At the Café Royal, Regent-street, on Saturday, March 9, members of the Incorporated Clerks of Works Association of Great Britain assembled, with their guests, for their fifty-second annual dinner in aid of the Benevolent Fund. Mr. T. P. Bennett, F.R.I.B.A., was in the chair.

Mr. G. E. Vincent, V.P., I.C.W.A., who proposed the toast of "The Architects, Engineers and Surveyors," said that the new conditions of life and business created fresh problems and great responsibilities for architects, engineers and surveyors, and they were responsibilities which called for the respect and loyal co-operation of the clerk of works.

Mr. W. H. Ansell, V.P., R.I.B.A., who was the first to respond to this toast, said the building industry was a great co-operative affair, and a good result could only be achieved by the cordial and sympathetic co-operation of builder, architect and clerk of works. Architects knew how valuable a good clerk of works was on any job. Economies were being pressed for, but none was so little worth while as that made by doing without a clerk of works, who was the guide, philosopher and friend both of architect and builder.

Mr. G. Widdowson (Chief Quantity Surveyor to H.M. Office of Works), who also responded to the toast, said his Department engaged a great number of clerks of works, and what the officials would do without them he could not say.

The toast of the evening, the health of the Association, was proposed by the Chairman, who said that as building became ever more scientific the clerk of works was expected to supervise each section of the work. The clerk of works had to be a diplomat of the first order, for he must hold the balance between architect, surveyor, master builder and workman. He had the duty of organisation, which consisted in foreseeing work before the moment of execution, a most difficult task for a man who had to carry out building operations. He (the speaker) had been astonished to notice the extraordinarily wide geographical range of the Association: sums of money towards the Benevolent Fund had come from many different parts of the country.

Mr. A. B. Ashby, President, I.C.W.A., said the object of the annual dinner was to help the Benevolent Fund by which the Association aided its aged and distressed members. At present there were nine pensioners, representing £270 per annum. There were also other unfortunate cases, caused through death or unforeseen circumstances, to which the Association endeavoured to give assistance. The Association had now been in existence for more than half a century.

Mr. G. W. Harris, P.-P., I.C.W.A., proposed the health of the Worshipful Company of Carpenters. He said the members of the Association were grateful to the Company for its hospitality in allowing them to use its hall. Originally known as the Brotherhood of Carpenters, the Company had been established since the year 1333, and in its early life had powers vested in it to control City buildings and condemn faulty material—obviously a clerk of works' job. In 1623 the Worshipful Company had established almshouses for its poorer members. To-day it trained men in all branches of the building industry and issued certificates which were the hall-mark of quality.

Mr. F. Adams Smith (Past-Master of the Worshipful Company), responding to the toast, said a large sum of money was spent on the technical schools at Great Titchfield-street. Some other City Companies assisted, but the bulk of the expenditure was met by the Carpenters' Company. Owing to mechanisation, carpentry was no longer so popular as it used to be, but it would always be wanted.

Mr. W. Lake, P.-P., I.C.W.A., proposing "The Builders," said some builders fancied they were doing good business when knocking a halfpenny a yard off sand, although the substitute was costing the foreman twopence a yard more to use; but those builders were not the ones he (the speaker) admired.

Mr. James Rooff (President, L.M.B.A.), responding to the toast, said the L.M.B.A. did not look upon the clerk of works as the "big bad wolf," but as a man prepared to assist in carrying out good building.

The toast of "The Visitors" was proposed by Mr. P. J. Luxton, P.-P., I.C.W.A., and responded to by Colonel Marriott, and the health of the chairman was proposed by Mr. Ashby.

A feature of the evening which caused a great deal of amusement was a mock auction held by the chairman. Mr. Fred May had made some pencil sketches of some of those present, and the property in the cartoons, when completed, was offered by the chairman to whoever would contribute most liberally to the Benevolent Fund. The total amount thus brought in amounted to £66 18s. Previously to the receipt of this amount the sum of £100 had been collected in the room, and this, being added to what had then come in, made a total at the time of making the announcement, and before the sale of the cartoons, of £357 18s. 6d., which the chairman said was easily a record. The total secured amounted to £424 16s. 6d.

L.C.C. SCHOOL OF BUILDING

ANNUAL PRIZE-GIVING.

The annual prize-giving of the L.C.C. School of Building, Ferndale-road, Brixton, took place on Friday, March 8, under the chairmanship of Mr. W. Davis, vice-chairman of the L.C.C. Advisory Sub-Committee.

The vice-chairman opened the proceedings and announced the unfortunate absence of Mr. H. D. Searles-Wood, F.R.I.B.A., the chairman.

The Principal, in his annual report, said that the main structure of the new building was complete and they hoped to occupy part of the building in July. in the senior day school there were 57 full and 14 part-time students; an architectural section had been developed with some success. Mr. H. A. White, who had studied in that section, had been awarded the R.I.B.A. prize for the best set of six drawings submitted in competition by students of art and technical schools, giving instruction in architecture. In the senior day school there were 85 students who had completed their training in 1933-34, and all of these had found positions in the industry and professions. The general nature of the course was found to be very suitable for youths proposing to take up professional work in junior positions. His attention had been drawn to the case of an old student who had passed through the junior course, entered into architecture and studied in the evening school and elsewhere, and had just been awarded second place as joint architect in the competition for the design of reinforced concrete houses. The work in the evening school was so varied and comprehensive as to forbid entering into detail. A greater number of students were engaged on general courses of training in building administration, surveying, structural engineering, reinforced concrete design, sanitary enginering and heating and ventilating. In these groups many were preparing for professional examinations. The Building Group was organised for preparations for national certificates . In 1933-34, 23 students gained ordinary national certificates and 10 higher national certificates. On the trade side of the school, which contained a little less than one-third of the total of students, they had had unusual successes in the City and Guilds Examinations. These included two first prizes for carpentry and joinery, two first prizes in masonry, five medals in plastering, and a second final medal in builders' quantities. In masonry one silver medal and three bronze medals were awarded to students by the Worshipful Company of Masons and a silver medal by the College of Masons. The premier award in the evening school was the Sage "Memorial" Medallion, which had been won by Mr. Leslie A. Grealey for a fine piece of handrailing, *plus* an excellent record over a period of four years, which included a fine set of class and homework drawings.

Mr. Basil C. Aldous, President of the Institute of Builders, in his address to the students, said it might be thought that he was well qualified to address them, but he was afraid he was not. True, many years ago he was a student at the school. His first sympathies that evening lay with those who, like himself many years ago, now found themselves among the "also ran." To them he would say, as others no doubt had said before him, that the technical course was more important than the examination or the prize. What one put into a thing was more important than what one got out of it, especially in student days; and in every calling the ultimate tests were in the open field of character and concentration on the job. The special qualification for success in building lay, not in prize-winning, but in a common-sense application of theoretical knowledge to one of the most practical of industries. That was not to say that, on behalf of himself and his colleagues of the "also ran," he did not humbly and sincerely congratulate those beacons of the school—the prize-winners. There was keen competition for the awards of an important school. It was pleasant and honourable to receive those hall-marks of exceptional student merit. It was not easy to achieve certificates of national standing, and it was very encouraging to have those assurances of studies well fulfilled. Student achievement should spell, and might spell, practical success. But the rules of the game were the same for all. They were not designed especially for prize-winners. They all had a good send-off along the road, and he hoped they would keep it by industry. Manners and methods of life changed, and in these changes the Building Industry was moving rapidly from traditional methods into a world or whirl of new methods and new materials. Cheapness and speed, the tandem which had served so well, was now in danger of running away with us. Speed was good, cheapness was good, but not at the cost of our arts and crafts and of their thoughtful expression in good building.

It was for the older members of the Industry and for the recruits to bear in mind that the welfare of a people lay largely in its building; to remember the past tradition in building from architecture to craftsmanship; to foster its dignified progress in sincere, thoughtful, efficient service; and to set their face against the thoughtless, ugly, vulgar structures which, wrongly called buildings, marred so much of the land to-day. In conclusion, he congratulated the Principal on the very satisfactory report.

The prizes were then distributed by Mr. Basil C. Aldous, and Mr. D. Crombie presented the National Joint Council Certificates for the Plastering Industry and the "Crombie Trophy" open to the Grade III. students in the evening school for the best class record and successes.

In proposing a vote of thanks to Mr. Aldous, Mr. Martin S. Briggs, F.R.I.B.A., said he was very thankful for the good advice which had been given to the school. He would like to see every recruitable person belong to the Institute of Builders, and in the same way the architectural student to belong to the R.I.B.A.

Mr. J. H. Rooff, President of the London Master Builders' Association, seconded the vote, and said his Association was keenly interested in the work of the school. It was pleasing to look around and see the work the students had done and know they were looking at the work of the men of the future.

Mr. Basil C. Aldous replied.

The Mayor of Lambeth proposed a vote of thanks to the chairman, which was seconded by Mr. F. W. Stratton. Mr. W. Davis, replying, said he hoped the use of science in the development of building would supply better homes than were being provided at the present.

COMPULSORY PURCHASE OF LAND

WATER RIGHTS RESERVED.

THE recent case, Isle of Wight Rural District Council (Public Works Facilities Compulsory Purchase) Confirmation Order, *in re* Sir J. W. B. Simeon, Bart., at present only briefly reported (*Weekly Notes*, February 16), raises points which are of importance to landowners. Sir J. W. B. Simeon, the appellant, the owner of a large estate, had sold a portion known as Pitt's Farm to a purchaser in 1932, with a reservation of all water rights except water required by the purchaser for agricultural or domestic purposes, the purchaser also having covenanted not to do anything whereby the water supply should be diminished or its purity impaired. Between 1928 and the early part of 1934 negotiations had taken place between the appellant and the Rural District Council for the acquisition by the Council of the sole right to obtain water from the estate, but no agreement had been reached. On April 17, 1934, the Council, under the Public Works Facilities Act, 1930, had made a compulsory purchase order, authorising the Council to purchase compulsorily, for the purpose of obtaining water in connection therewith, the land Pitt's Farm conveyed to the purchaser. The order was in the statutory form, and the land was described in the schedule, and a statutory notice had been served on the appellant, in which, under the heading "Owners or reputed owners," the names of the purchaser and of the appellant were given. On May 11, 1934, the appellant had given notice of objection to the order on the ground that the Act only authorised the purchase of land, and the order did not specify what it was proposed to purchase from the appellant, as the land was vested in the purchaser, but subject to certain reservations.

A public inquiry was ordered by the Minister of Health, and at the inquiry, it is stated in the report of the case, it appeared from the evidence given on behalf of the Council that the compulsory purchase order was made upon the footing that the reservation in the conveyance was of no effect. The officer holding the inquiry stated that he was unable to go into the legal question as to the validity of the reservation, and that matter would have to be considered by the Minister. When the report came before the Minister, after considering it, he confirmed the compulsory purchase order. The appellant then appealed to the High Court for an order that the compulsory purchase order might be set aside. The appeal was lodged on August 11, 1934, and on September 11 the Council had served a notice to treat on the appellant.

The grounds on which the appeal was based were: (1) that the order was *ultra vires*, as the Act only authorised the purchase of land, and the appellant, having disposed of the land, the notice, by including the appellant's name, must be taken as purporting to acquire something from him which was not land. The Court negatived that assumption, holding that all that was implied by the order was if the appellant had any interest in the land, that interest might be bought, but if he had only some right which was not an interest in the land within the Act, then the fact that his name appeared in the order effected nothing against him.

The second objection was that the property was not sufficiently described in the order and the notice, and reliance in support of this was placed on the words used in the First Schedule, Part II, Clause 3 (*b*), to the effect that the notice must state "the effect of the order"; but the Court held that the effect of that provision was merely that the notice should give an indication of what the order contained, and here the order only purported to acquire the land, the description of which was unexceptionable, and again the appellant's contention failed, as it could only be supported on the assumption that the order purported to acquire such rights as the appellant had reserved to himself.

The last objection was that the legal objection had not been sufficiently considered by the Minister, but the Court held that Clause 4 of Part II. of the First Schedule, which deals with the confirmation of an order, did not provide, when the Minister was considering the report on the inquiry, for any second hearing before the Minister.

These proceedings only arose in connection with an objection to the report, and under the First Schedule, Part II, Clause 4, such an objection must be made, as in the absence of objection the report may be confirmed without modification. Where an application is made to the High Court under the First Schedule, Part III, Clause 2, of the Act, if the Court is satisfied that the order is not within the powers of the Act, or that the interests of the applicant have been substantially prejudiced by any requirement of the Act not having been complied with, the Court may quash the order either generally, or so far as it affects any property of the applicant; but by Clause 3, any other proceedings, whether by prohibition or *certiorari*, or of any kind whatsoever, are prohibited. There is, however, an appeal to the Court of Appeal, and, by leave of that Court, to the House of Lords.

As the Court in the present case held that the order was not *ultra vires*, perhaps the inference may be drawn that the reservation of water rights was not an interest in land within the scope of the Act, and the applicant's rights were untouched, a difficult question of law upon which on the present material no definite opinion can be expressed.

PRECAST CONCRETE

ÆSTHETIC AND STRUCTURAL VALUE.

AN address on "The Æsthetic and Structural Value of Pre-cast Concrete" was given by Mr. A. C. James, A.I.Struct.E., Vice-Chairman of the Cast Concrete Products Association, to the Western Counties Branch of the Institution of Structural Engineers, at Bristol, on Friday, March 1.

The lecturer said the æsthetic effect of a building depended upon a variety of factors—design, light and shade, the texture and colour of the material and the right use of moulding or ornament. The finest form of pre-cast concrete—cast stone—had such a versatility of application that it was a most useful medium of expression. If light and shade were desired, the clean lines of a "mason-dressed" cast stone front were pleasing and restful without being fussy. If ornament were desired, cast stone was equally suitable.

Surface texture had a distinct bearing on the appearance of a building, and for that reason much ingenuity and inventive ability had been expended in devising various methods of finishing *in situ* surfaces. The processes were costly, the result monotonous and usually unpleasing. On the other hand, an external finish of cast stone afforded that slight variation of tone and texture necessary for the broad planes so much in vogue at the present time.

The use of cast stonework implied jointing, and the faintly defined joints of stonework correctly set out were of great æsthetic value. There was, however, a more practical use for jointing. A certain amount of movement was inevitable, and the wise man made allowance for it. The use of cast stone, set in the right kind of setting mortar, allowed a certain amount of movement to take place, and as that movement took place in the joints, unsightly cracks were avoided.

The C.C.P.A. was an association of manufacturers formed for the sole purpose of creating and maintaining a standard of quality by co-operation and research. More than £6,000 had been spent in the last three years on research alone, and the results had been of great benefit to all concerned. The Building Research Station, working in collaboration with a Committee of Manufacturers, had been working on problems concerned with durability, strength, texture, shrinkage and curing, and from the knowledge obtained, the Association was able to pass on to its members valuable information.

It must be realised by the architect and the engineer that a good mix from an engineering point of view was not necessarily suitable for pre-cast concrete. Crushing tests were not always indicative of weathering qualities, nor was absolute impermeability desirable in all cases. The idea still persisted in some quarters that pre-cast concrete could be made by any contractor employing that very rare phenomenon, "the intelligent labourer." Over twenty years' experience in the business had convinced the speaker that it took two years of close training to make an efficient and skilled mould-filler. The sooner that fact was recognised by the professional side of the building industry the better.

No structural engineer needed to be reminded of the necessity of control in the mixing and use of concrete. In the making of pre-cast concrete and cast stone proper control was equally necessary. The proper selection and grading of aggregate, water content, handling, curing and drying—all those things were carried to a very high degree of efficiency in a modern products plant. The work was done under the best conditions by trained men under skilled supervision.

The latest development in the making of cast stone was a process of curing which produced the effect of twelve months' exposure to the weather before delivery, and, at the same time, produced from 50 to 75 per cent. of that initial shrinkage which occurred in all concrete on its first drying out. The advantage of that needed no emphasis, but he cited the fact to indicate that the up-to-date maker was now in a position to give guarantees that meant something.

Firstly, then, pre-cast concrete could be safely used as a load-bearing material, and, therefore, properly applied, it would, in some cases, enable the engineer to use lighter steel. He had referred to the fact that impermeability was not always a necessary quality; that was so in the case of interior walls and partitions from the point of view of condensation. Pre-cast concrete could be made having the necessary strength required and yet of such a texture that condensation would not appear on its slightly absorbent surface. That type of surface was of additional advantage in affording key for wall finishes, plaster and the like.

The second great contribution that pre-cast concrete made was the saving of weight by the use of hollow units for panel walls and partitions that were non-load bearing. A British Standard Specification was now in draft dealing with that material. In that direction, some revision of by-laws was long overdue.

He was glad to say that much progress was being made in the use of hollow blocks. A fairly large factory had just been completed in Bath where 7 in. hollow blocks in cast Bath stone had been used in the exterior walls to the complete satisfaction of the architect and owner. Lightness could be also obtained by the use of special aggregates such as pumice, and in that direction much useful information had been furnished by the C.C.P.A. to the British Standards' Institution in the preparation of a B.S.S. for solid partition slabs. Those aggregates also had very valuable properties of heat and sound insulation.

The wide application of pre-cast concrete to fireproof floors was recognised. The types and systems of floors were bewildering in their number and variety. Any efficient type of reinforced floor, however, must have adequate strength for the load, the lowest possible dead weight, correct disposition of steel, and be capable of speedy erection. Those requirements were met in varying degree by the various systems now on the market, and the lecturer stressed the advantages of a pre-cast concrete filler block.

Pre-cast concrete, in connection with its use for stairs, had, in the lecturer's opinion, the advantage of a seasoned material better adapted to very hard wear and tear, at a lower cost than by the method of casting the stairs *in situ* and facing them up afterwards, with the possibility of shrinkage cracks developing in the facings, due to causes other than workmanship.

MASTER BUILDERS' DINNER

We give points taken from speeches given at annual dinners of local branches of the National Federation of Building Trades Employers :—

Coventry and District Association.

Proposing the toast of " The National and Midland Federations " at the annual dinner of this Association, held on March 1, Mr. T. Dalton (chairman) remarked that the National Federation stood for improved conditions and equitable peace in the industry. To the younger members he would say that they were living in an age of realisation and mass production. They were witnessing the genius of man being put into many industries—textile, engineering, aircraft—and rightly so. But there was not one that could compare with the building industry. If they wanted any evidence of this they had no need to go to ancient Greece or to Rome. They had an abundance of graceful architecture in their own land—Tudor, Gothic or the Cathedral style. There was still room for architects to develop, and they had not to forget the glorious heritage of which they had come into possession.

Mr. William Ivens, submitting the toast of " The Guests," remarked that builders begged of the Council not to let the centre of the city look like an earthquake or the result of an air raid. Some of them were rather concerned when they looked at Corporation-street, new buildings, the contemplated Trinity-street, and the proposed road from Hertford-street to Smithford-street. " We want the Council to make up its mind to sell the land which is available on the new streets. As a student of municipal affairs, I want to say that it is not the price of the land that you need bother about. I would not worry about getting the last pound per yard, but would get some good buildings on the land as quickly as possible."

Folkestone and District Association.

Speaking at the annual dinner of this Association, held on February 22, Mr. C. D. Jenner (chairman) said that, as many of them knew, there was to be a demand from the men for higher wages. He did not blame the men for trying to get higher wages, perhaps they had some reason for making the demand; they said times were better and builders were doing better, and there was a lot of common-sense in that. From the builders' point of view, if they sat down and said " Yes," it would go on for ever and ever; they had to take their stand. There was a Negotiations Committee which sat on all matters which were disputed and the cost of living was taken as a basis for wages. He thought the reason they had not had trouble was because they tried to find points with which the other side would agree, and he thought generally the builders " hit it " very well with the men who were under them. The Federation also met the architects. As a local association they had builders who were not members of the Federation, and as chairman he was delighted to see such a good attendance.

During the evening, on behalf of the members of the committee, Mr. Otto Marx presented a silver fruit bowl to the chairman, inscribed " Presented to C. D. Jenner, Esq., by the Folkestone and District Master Builders' Association in commemoration of the National Federation of Builders' Conference, 1934."

BRITISH STANDARD SPECIFICATIONS

Nomenclature of Commercial Softwoods.

Of late years there has been a growing demand for a standard authority on the naming of our commercial softwoods. The need for such authority has been felt throughout the timber trade amongst the merchants, the architects and others interested in marketing and specifying timbers in common commercial usage. The British Standards Institution, through a committee representing all branches of the timber industry, has just published a list of over 70 trade names for softwoods, which are either in common use in this country or bear promise of greater development. The table of names, in addition to giving the standard trade name for each species, also lists the botanical name according to which the definite identity of the timber may be established, and the country of origin, as well as a list of the various synonyms, both common and botanical, by which the timber may sometimes be named. The index lists all the names, and the inquirer may immediately locate the timber in the list by reference to this index. Copies of this Nomenclature (No. 589-1935) may be obtained from the Publications Department, British Standards Institution, 28, Victoria-street, London, S.W.1, price 2s. 2d. post free

Vitreous-enamelled Steel Reflectors for Electric Lighting.

The committee of the British Standards Institution responsible for the preparation of the " B.S. Specification for Industrial Reflector Fittings for Electric Lighting, No. 232," which was issued in 1926, has just revised this specification. The chief modification is in clause 6, dealing with distribution of light. A column giving the nominal lumens of the lamp has also been added to the table. The title of the specification has been changed to " B.S.S. for Vitreous-enamelled Steel Reflectors for Electric Lighting—Open Dispersive Type." Copies (No. 232-1935) may be obtained from the Publications Department, British Standards Institution, 28, Victoria-street, London, S.W.1, price 2s. 2d. each, post free.

Joinery Units.

The Building Division of the British Standards Institution has now completed and issued three new British Standard Specifications for Joinery Units, covering Wooden Gates, B.S.S. No. 583; Wood Mouldings, B.S.S. No. 584; and Wooden Stairs, B.S.S. No. 585. The specifications for stairs and gates are of a general nature, providing for requirements as to quality of timber, dimensions of materials and constructional details and finish. The specification for wood mouldings includes, in addition, a series of British Standard suites of architraves, picture rails, dado rails and skirtings so designed that when assembled they will be in harmony with one another. In this work, the R.I.B.A. have taken a very active part, and have rendered valuable assistance in the preparation of these standards. Moisture content limits are laid down in each of the specifications, the requirements having been based on the results of tests made on timber taken from actual manufacturing stock. Copies (Nos. 583, 584 and 585—1934) may be obtained from the Publications Department, British Standards Institution, 28, Victoria Street, S.W.1, price 2s. 2d. each post free.

WARMING BUILDINGS BY ELECTRICITY.

Convenience, added to the greatly reduced price of electrical power, has been responsible for an increased popularity in heating by electricity. An essential part of the electrical engineer's make-up has, therefore, become the calculation of heat loss as applied to warmed rooms, and for those who are ignorant of the subject we cordially recommend a book just published*. To handle electric warming problems successfully demands a knowledge of the flow of heat and the flow of electricity, and this book, being for electrical engineers principally, deals more particularly with the fundamentals of heat. The subject is treated in logical order, and the well-printed text is aided by useful diagrams and illustrations of the latest types of heating apparatus. We commend it —not to electrical engineers only, but to architects—as filling a gap in the literature on applied electricity.

*" Warming Buildings by Electricity." By F. C. Smith. (London : E. and F. N. Spon, Ltd.). 8s. 6d. net.

THE WEEK IN PARLIAMENT

The Housing Bill.

The Standing Committee of the House of Commons which is considering the Housing Bill dealt first of all last week with Clause 12, from which Mr. Brown moved the omission of the provision that the areas in which redevelopment could take place should be limited to those containing 50 or more working-class houses.

After discussion, amendment withdrawn.

Sir M. Manningham-Buller moved that the provision defining redevelopment areas as those in which 50 per cent. of the working-class houses are overcrowded or unfit for human habitation should be amended so that the proportion of such houses should be one-third of the aggregate number.

Mr. Strauss moved as an amendment to this amendment that the Minister of Health should be empowered to require local authorities to prepare redevelopment schemes where the percentage of defective and overcrowded houses was less than one-third of the whole. He said it was desirable that the clause should have elasticity, and this would be achieved if the Minister of Health were given the discretionary power which he (Mr. Strauss) proposed.

After discussion, Mr. Strauss's amendment was negatived, and the original amendment proposed by Sir M. Manningham-Buller was agreed to. The clause as amended was then added to the Bill.

Debate arose on clause 22, which states that the Minister of Health shall appoint a Central Housing Advisory Committee to advise him and the Housing Management Commission.

Mr. Crossley said the Advisory Committee ought to be given more specific powers than were proposed in the Bill. They ought to be able to advise on the price of sites, which was of vital importance, because increase of the price of sites might wreck the Bill. If the architectural profession were represented on the Committee it might be possible to give architectural guidance to local authorities.

Mr. A. C. Bossom said it was important that there should be planning of housing schemes to ensure that prices were not forced up by unnecessary and avoidable competition.

The clause was ordered to stand.

Ribbon Development

Mr. Bossom asked the Minister of Health if he would request all town-planning authorities, having jurisdiction over land adjacent to existing arterial roads, immediately to town-plan all the existing undeveloped stretches more than 200 yards long on either side of the road for a depth of 100 yards from the line of the roadway as permanent open spaces, to prevent the continuance of the prevalent ribbon development.

Sir Hilton Young said he would not. Legislation dealing with the point the hon. Member had in mind would very shortly be introduced.

Mr. Bossom asked the Minister of Transport if he would investigate the possibilities of making appropriate compensation for acquiring a belt of land 100 yards wide upon all arterial roads or main roads that were being widened, to prevent ribbon development being continued, pending the introduction of a fully considered measure.

Mr. Hore-Belisha said that the suggestion had been noted in connection with the proposals now being framed.

South Downs Preservation.

Mr. Mander asked the Minister of Health if he would state the present position with regard to the erection of a motor racing track at Portslade; and what steps were being taken for the protection of the remainder of the South Downs.

Mr. Shakespeare said the Minister understood that permission to construct the proposed motor race course had been given by the Portslade-by-Sea U.D.C. As regarded the second part of the question, schemes were in preparation, and development was subject to preparation.

NEW BUILDINGS IN LONDON

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

ACTON.—FLATS.—Mr. R. Browne, 502, Edgware-road, W.2, is the architect for shops and flats at 103, Shakespeare-road, for Mr. R. J. Hewett. The contract is not yet settled.

ACTON.—REBUILDING.—Of part of the St. Dunstan's Vicarage is to be carried out for the Rev. R. Godfrey, Friars Place-lane. The plans are by Mr. A. B. Jackson, F.R.I.B.A., 3, New-square, W.C.2. The builders are Messrs. James Woollard and Son, Ltd., 52, Churchfield-road, Acton, W.3.

ACTON.—SHOPS.—Messrs. J. Brown and A. E. Henson, 83, St. Giles-street, Northampton, are the architects for ten shops with flats over the premises of the City Housing Trust, Ltd., in Horn-lane.

ACTON. — BUILDING. — The Goldsmiths' Company have promised £10,000 towards the completion of the Y.W.C.A. centre at Acton Vale, W.3. This will enable the committee to add a gymnasium and hostel, and to enlarge the present cafeteria and club premises.

BECONTREE. — BUILDING. — The L.C.C. recommend the freehold land in Chitty's-lane and Freshwater-road, Becontree, be sold for £3,000 to Advance Laundries, Ltd., for the erection of administrative offices.

BERMONDSEY. — WAREHOUSES. — Messrs. Hal Williams and Co., factory architects, 43, Bedford-square, W.C.1, have submitted an application to the L.C.C. for the erection of a warehouse building at Chambers-wharves, New Church-street, S.E.

BRIXTON. — LAUNDRY. — The Sunlight Laundry (Messrs. Loud and Western, Ltd.), Broughton-road, Fulham, S.W., have placed a contract with Messrs. Higgs and Hill, Ltd., Crown-works, South Lambeth-road, S.W.8, for a laundry, etc., in Acre-lane, S.W.2. The plans have been prepared by Mr. F. E. Simpkins, Chase Estate Office, Park Royal-road, Willesden, N.W.10.

CHELSEA.—BUILDING.—Mr. H. W. Binns, F.S.I., 23, Bloomsbury-square, W.C.1, is the architect for new premises to be erected at 23-27, Cheyne-place, S.W.3.

CHISWICK.—ADDITIONS.—Quantities have been sent out to builders for additions to St. Mary's Convent in Burlington-lane. The plans are by Messrs. F. Rowntree and Sons, 94, Baker-street, W.1.

CHISWICK.—FLATS.—A block of flats are being erected in Sutton Court-road, W.4, by the Raglan Building Co., Ltd., 110, Raglan-court, Wembley. The floors are by the Trussed Concrete Steel Co., Ltd., London, S.W.1.

CHISWICK.—EXTENSIONS.—To their factory in Acton-lane, W.4, are contemplated by Messrs. Eversheds and Vignoles, Ltd. The architects are Messrs. Stanley Peach and Partners, 60, Warwick-square, S.W.1.

CHISWICK HIGH-ROAD.—ALTERATIONS.—The Royal Brewery (Brentford), Ltd., Park-street, S.W.1, are to have the "Gardeners Arms" altered. The plans have been approved by the local council.

CLAPHAM.—FLATS.—The Housing Corporation of Great Britain, Ltd., 50, Pall Mall, S.W.1, have had plans prepared for a block of flats in Balham-hill and Nightingale-lane, S.W., to be called "Westbury Court." There will be 120 flats and 8 shops, with a large restaurant. The contractors are Messrs. Gee, Walker and Slater, Ltd., 32, St. James's-street, S.W.1.

CLAPHAM PARK.—HOUSING.—The L.C.C. has approved the development of the remaining land on the Clapham Park estate to the west of Forster-road, by the provision of four blocks of dwellings comprising 91 flats and containing 310 rooms. The estimated cost is £49,000.

COVENT GARDEN.—WAREHOUSE.—Of six floors is to be built in James-street, W.C.2, by Messrs. Howard and Co., 3, Broad Court-chambers, W.C.2. The plans have been prepared by Messrs. E. A. Shaw and Partners, 19, Bow-street, W.C.2.

DARTFORD.—MODERNISATION.—The L.C.C. recommend £301,300 in respect of the modernisation of the Darenth training colony.

DEPTFORD.—EXCHANGE.—H.M.O.W. have placed a contract with Messrs. G. H. Dibblin, Ltd., Albany-buildings, 47, Victoria-street, S.W.1, for erection of a new telephone exchange.

EAST ACTON.—ALTERATIONS.—Are to be made to the branch post office for H.M.O.W. The contract has been secured by Messrs. Marchant, Hirst and Co., Highgate-road, Kentish Town, N.W.5.

EAST BARNET.—PREMISES.—Plans have been prepared for the Cannon Brewery Co., Ltd., 160, St. John-street, Clerkenwell, E.C.1, for a new public-house, to be known as the "Welcome Inn," in Hampden-way and Osidge-lane. No contracts have been placed yet.

EAST KINGSBURY.—SCHOOL.—The Middlesex E.C. are inviting tenders for the erection of an elementary school in East Kingsbury. The plans are by the County Architect, Mr. W. T. Curtis, F.R.I.B.A., and applications are to be made by March 25.

EDGWARE.—SHOPS.—And flats are to be erected in Manor Park-road, to the designs of Messrs. Emden, Egan and Co., 7, Garrick-street, Covent Garden, W.C.2. The builders are Messrs. R. N. Barber and Son, Watford Way, Mill Hill, N.W.7.

EDMONTON.—BUILDING.—The U.D.C. is to apply to the Ministry of Health for permission to borrow £88,000 for new Town Hall buildings.

ELTHAM.—FACTORY.—Messrs. Fuller, Hall and Foulsham, 212, High Holborn, W.C.1, are the architects, on behalf of Bristol Industries, Ltd., for a mineral water factory on the north side of Avery Hill-road, S.E.

ELTHAM. — ADDITIONS. — The Woolwich B.C. has approved plans submitted by Messrs. Elcock and Sutcliffe, Adam House, 60, Strand, W.C.2, on behalf of Midland Bank, for additions to the premises at 196, Court-road, S.E.

GOLDERS GREEN-ROAD. — PREMISES. — Messrs. Welch, Cachemaille-Day and Lander, 8, Gloucester-place, W.1, are the architects for new shop premises now being erected by Messrs. Haymills, Ltd., The Avenue, Wembley. The reinforced concrete engineers are the Trussed Concrete Steel Co., Ltd., London, S.W.1.

HACKNEY.—SHOPS.—And flats are being erected in Well-street by the Hackney Estate, Ltd., Sharon-gardens, E.9, from plans prepard by Mr. H. W. Currey, F.R.I.B.A., 51a, Catherine-street, S.W.1. The floors are by Messrs. Trussed Concrete Steel Co., Ltd., S.W.1.

HAMPSTEAD.—LIBRARY.—Mr. H. A. Gold, F.R.I.B.A., 14, Bedford-row, W.C.1, has been appointed by the Borough Council to prepare the preliminary plans, specifications, etc., in connection with the proposed rebuilding of the Belsize branch library.

HAMPSTEAD.—PREMISES.—Messrs. Hoare and Co., Ltd., Red Lion Brewery, St. Katherine's-way, S.E.1, have decided to build a new public-house, the "Freemasons' Arms," in Downshire-hill, N.W.3, at £12,000. The plans have been prepared by the company's architect, Mr. S. C. Clark, A.R.I.B.A. No contracts have been placed yet.

HANWELL.—HOUSES.—The L.C.C. recommend £812,000 for the construction of roads, sewers and 1,668 houses and flats on the Hanwell housing site. It is also proposed to allocate two school sites of about two acres each, two sites for public buildings, and sites for a licensed refreshment house, 15 shops and a doctor's house.

HARROW.—FIRE STATION.—The U.D.C. have appointed Messrs. Robinson and Roods, 37, Bedford-row, W.C.1, as quantity surveyors for a new main fire station in Pinner-road. Flats are also to be erected in connection with the scheme. Tenders are to be invited.

HARROW.—REBUILDING.—A reinforced concrete "mushroom" building is to be erected in Station-road for Messrs. Soper. The architects are Messrs. John S. Quilter and Son, 3, St. James's-street, S.W.1, and the building contract has been placed with Messrs. Allen Fairhead and Son, Ltd., Sydney-road, Enfield. The reinforced concrete engineers are the Trussed Concrete Steel Co., Ltd.

HOLLOWAY-ROAD.—ADDITIONS.—Messrs. Adams, Holden and Pearson, FF.R.I.B.A., 9, Knightsbridge, S.W.1, are the architects for additions to the Royal Northern Hospital. The builders are Messrs. Dove Bros., Ltd., 1, Cloudesley-place, N.1. The reinforced concrete roofs are by the Trussed Concrete Steel Co., Ltd.

KENSINGTON.—FLATS.—A contract for a further section of the large block of flats, to be known as "Stafford Court," on the Phillimore Estate, High-street, W., has been placed by the Morris Estates, Ltd., 14, Regent-street, S.W.1, with Messrs. A. Roberts and Co., Ltd., 74, Earls Court-road, W.8. The plans have been prepared by the company's architect, Mr. H. J. Palmer.

KEW.—FLATS.—A block of 76 flats in Kew Bridge-road, is to be built from plans prepared by Mr. G. G. Winbourne, A.R.I.B.A., Bank-chambers, Bishopsgate, E.C.2, on behalf of Messrs. Davis Estates Co., 314, High-road, N.15. The quantities are by Messrs. Veale and Sanders, 257-259, Oxford-street, W.1.

LEWISHAM.—REBUILDING.—Mr. J. B. M. Hamilton has forwarded to the B.C. sketch plans for the proposed rebuilding of the "Coach and Horses" public-house, High-street. The plans have been approved by the L.C.C.

LEWISHAM. — BUILDING. — The B.C. has approved the application of Mr. S. W. Ackroyd, F.R.I.B.A., architect to the Royal Arsenal Co-operative Society, for the erection of a building upon site abutting upon Belmont-hill, Myron-place and Belmont-road.

LEYTON.—SHOWROOMS.—A scheme for utilising part of the open space in High-road, Leyton, near the "Bakers Arms," hitherto used as a site for stalls, for the erection of electricity showrooms and offices, was considered by the T.C. and agreed that a plan of the building should be prepared by the Borough Engineer and Surveyor in consultation with the Borough Electrical Engineer.

MARYLEBONE.—BATHS.—The B.C. are inviting tenders, to be returned by April 17, for the erection of swimming baths, slipper baths and public washhouses on site bounded

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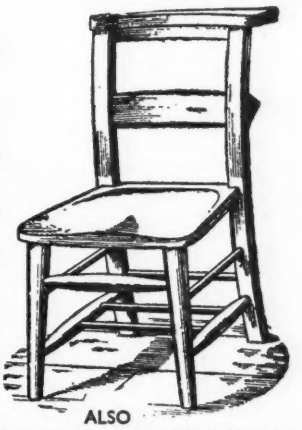

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by Seymour-place, Bryanston-place, and Shouldham-street, W.1. Messrs. A. W. S. and K. M. B. Cross, 45 and 46, New Bond-street, W.1, are the architects.

NORTH ACTON.—Factory.—A contract for the erection of a model new factory of 25,000 sq ft. floor space to be erected in Chase-road has just been placed. Building work is proceeding at once, and Messrs. Chamberlain and Willows, estate agents, 23, Moorgate, E.C., are connected with the scheme.

PERIVALE.—Hospital.—A new maternity hospital is to be erected for the Brentford and Chiswick and Ealing Hospital, at a cost of £35,000, and the work is to be commenced by June 1. Extensions are also to be provided at the isolation hospital at £18,920. This work is to be commenced by October 1. The plans are being prepared by the Borough Surveyor of Ealing. The site is in Western-avenue.

POPLAR.—Rebuilding.—The L.C.C. has approved of the rebuilding of Cubitt Town council school. The preliminary plans provide for the erection of a new three-story building with accommodation for rolls of 224 infants, 320 senior girls, and 320 senior boys, and, in addition, 20 places for handicraft and 20 places for domestic subjects. The total estimated cost is £44,575.

POPLAR.—Town Hall.—The L.C.C. has sanctioned the borrowing by the B.C. of £159,726 for the erection of a new Town Hall and Public Assembly Hall on a site at the corner of Bow-road and Fairfield-road.

PUTNEY HILL.—Flats.—The plans for the development of the "King's Keep" estate, by the erection of a block of 18 flats, are being prepared by Messrs. Marshall and Tweedy, FF.R.I.B.A., 4, Cavendish-place, W.1. No contracts have been placed.

REGENTS PARK.—Flats.—Plans have been prepared by Mr. A. Blomfield, A.R.I.B.A., New-court, Temple, E.C.4, for the reconstruction of Nos. 13-18, St. Edmund's-terrace, N.W.1, into flats. No contracts have been placed.

RUISLIP.—Shops.—Five shops, with flats over, are to be erected. The architects are Messrs. Marshall and Tweedy, FF.R.I.B.A., 4, Cavendish-place, Cavendish-square, W.1. The builders are Messrs. Janes (Builders), Ltd., Trading Estate, Slough.

SELSDON.—Church.—Messrs. J. E. Newberry and C. W. Fowler, Parliament-mansions, Victoria-street, S.W.1, are the architects for a new church to be erected.

SOUTHGATE.—School.—Tenders are invited for the erection of an elementary school in Green-street, for the Middlesex E.C. The plans are by the County Architect, Mr. W. T. Curtis, F.R.I.B.A., and applications are to be made by March 22.

SOUTHGATE.—Shops.—Tenders are about to be invited for the building of a further block of 18 shops, with flats, in Ossidge-lane, for the Morris Estates, Ltd., 14, Regent-street, S.W.1. The plans have been prepared by Mr. H. J. Palmer, the company's architect and surveyor.

SOUTHALL. — Hotel. — Messrs. Truman, Hanbury, Buxton and Co., Ltd., Spitalfields Brewery, E.1, have acquired a site in Tring-avenue and St. Margarets-road, for a public house, the cost of which is estimated at £17,000. No contracts have been placed yet. The company's staff architect is Mr. A. E. Sewell, L.R.I.B.A., 91, Brick-lane, E.1.

SOUTH GREENFORD.—School.—The Ealing E.C. has recommended the aceptance of a tender submitted by Messrs. Evan Thomas and Sons, 115, Boston-road, Hanwell, W.7, at £26,896, for the two-department Selborne school in Western-avenue.

SOUTH HARROW.—Building.— Negotiations are being completed for the sale of the South Harrow Baptist Church buildings in Northolt-road. The buildings will be demolished and a block of shops erected on the site. The Church proposes to acquire Mr. T. W. Farr's premises on the opposite side of the Northolt-road, known as St. Hilda's. A church will be built there to seat 500 people together with a full range of school buildings to accommodate the five departments of the Sunday-school.

STANMORE.—Building.—Plans have been approved by the Harrow U.D.C. for 92 houses on the Lynton Estate, off Camrose-avenue, for Messrs. Hartley Estates, Ltd.; 24 flats, Valencia-road, for Sir E. O. Williams, 5, St. George's-road, S.E.1; 58 houses in Hilbury-gardens, and 24 in Culver-grove, for Wonder Homes, Ltd.; 168 flats on the Lynton Estate, for Hartley Estates, Ltd. The Council also recommended further housing development in the Little Stanmore and Edgware areas.

ST. JOHN'S WOOD. — Flats. — Messrs. Gunton and Gunton, FF.R.I.B.A., Empire House, St. Martin's-le-Grand, E.C.1, have prepared plans for a block of flats, etc., at No. 27, Grove End-road, N.W.8. Contracts have not been arranged yet.

SUTTON.—Garage.—The L.P.T.B. have placed a contract with Messrs. C. H. Gibson, Ltd., 509, London-road, Croydon, for a large motor omnibus garage and depot in Westmead-road. Plans have been prepared by the board's architectural staff at 55, Broadway, S.W.1.

TWICKENHAM.—Houses.—The T.C. has approved the erection of houses and flats on the following sites: Chertsey-road, by Cole Park-road (30); Seaton-road (22); Ducks'-walk and Riverdale-gardens (54); Old House site, Park-road (16); and Forty Acre Field (24).

VICTORIA - EMBANKMENT.—Offices.—The directors of Associated Newspapers, Ltd., Carmelite House, Carmelite-street, E.C.4, have accepted the tender of Messrs. Trollope and Colls, Ltd., 5, Coleman-street, E.C.2, for the large new offices and printing works on the side of the old Metropolitan Asylums Board at the corner of Victoria-embankment and Carmelite-street. The plans have been prepared by Messrs. Herbert O. Ellis and Clarke, FF.R.I.B.A., 3, Old Queen-street, S.W.1.

WATFORD. — Rebuilding. — Plans have been prepared by the Cannon Brewery Co., Ltd., 160, St. John-street, E.C.1, for the rebuilding of the "Three Horseshoes" public-house, Garston. No contracts have been placed yet.

WEMBLEY. — Extensions. — Including a new nurses' hostel, etc., are contemplated by the committee of the Wembley District Hospital. The hospital architect is Mr. Herbert Kenchington, F.R.I.B.A., 108, High-road, Wembley. No contracts have been placed yet.

WEST HAM.—Houses.—The C.B. propose to erect (1) 70 houses at Greengate site, (2) 56 houses on Devonshire-road site, and (3) appurtenant concrete roads and sewers, to plans by the Borough Engineer, Town Hall, E.15, from whom specifications are obtainable on deposit of £1 for each contract. Tenders by March 29

WEST KENSINGTON.—Rebuilding.—The L.C.C. has placed a contract with Mr. Albert Monk, of Lower Edmonton, N.19, at £33,660 for the rebuilding of the West Kensington central boys' and girls' school. The plans are by the County Architect.

WESTMINSTER.—Premises.—The Corporation of the Church House has accepted the tender of Messrs. Holloway Bros. London), Ltd., 157, Millbank, S.W.1, for erecting the boarding-house for Westminster School and a gateway from Deans-yard into Tufton-street. Sir Herbert Baker, R.A., and A. T. Scott, FF.R.I.B.A., Romney House, Marsham-street, S.W.1, are the architects.

WILLESDEN.—Factory.—Messrs. Nicholls, Frayssse and Co., Ltd., 308, Gray's Inn-road, W.C.1, are to have a new factory erected in Acton-lane. The work is being carried out by Messrs. Robinson and Son, Market-chambers, Enfield.

WILLESDEN. — Factory. — Messrs. Chessums, Ltd., Imperial-works, Portland-road, Tottenham, N.15, are erecting a factory on site "H" in Cobbold-road, N.W., for Messrs. Christopher Dodson (1930), Ltd., Cobbold-road, N.W.10. The architects are Messrs. Henry Butcher and Co., 63, Chancery-lane, W.C.2.

WOOD GREEN.—Town Hall.—Mr. C. H. James, F.R.I.B.A., 33, Bedford-place, W.C.1, has submitted sketch plans for a new town hall to the Public Works Committee of the T.C. showing a three-story building estimated to cost £35,000.

WOOLWICH.—Extension.—The B.C. has approved plans and estimates submitted by the Borough Engineer for the erection and furnishing of an extension of the vacant ground adjoining the Plumstead Library to provide a combined junior library and lecture room, staff room, etc., at a cost of £5,123.

NEW CINEMAS

BANBURY.—The "Grand" Theatre is to be reconstructed. Plans, by Messrs. Drury and Gomersall, Imperial-buildings, Oxford-road, Manchester, have been approved by the council.

BATH.—Mr. N. D. FitzGerald has been granted a lease of Corporation land between Westgate-buildings and Avon-street for the erection of a cinema to seat 2,000 persons.

BOURNEMOUTH.—Odeon Cinema Circuit, Cornhill House, Bennets Hill, Birmingham, have acquired a site for a super cinema to seat 2,500. Plans are being prepared by Mr. George Coles, F.R.I.B.A., 40, Craven-street, Strand, W.C.2. No contracts placed.

BOURNEMOUTH. — Mr. W. R. Glen, F.R.I.A.S., staff architect to Associated British Cinemas, 30, Golden-square, W.1, is to prepare plans for the erection of a cinema on a site adjoining the Westover cinema, which it will replace. The new house will hold 2,500.

CHESTER-LE-STREET.—Mr. James W. Corking, 16, West-street, Gateshead, has prepared a scheme for a cinema in Durham-road, Birtley, on the site of an old skating rink. Preliminary plans have been approved and a licence granted. No contracts placed.

HALESOWEN. — The "Cosy Corner" cinema, in Peckingham-street, is to be enlarged temporarily, and finally rebuilt for the owner, Mr. S. Bray.

HASLEMERE. — Mr. A. F. Hunt, L.R.I.B.A., 46, Blandford-street, W., has prepared plans for a cinema to seat 1,000 in Haslemere.

HEREFORD.—Applications for licences for three cinemas have been made to the Licences Committee, which has decided to disallow two and sanction the third, for a theatre in Eign-street to cost £25,000 for Odeon (Hereford), Ltd., Cornhill House, Bennetts Hill, Birmingham. Plans are by Mr. R. Satchwell, 6, New-street, Birmingham.

HOUNSLOW.—A new cinema, "The Figaro," is to be built soon on the Lampton-road. No contracts placed yet. The architect is Mr. A. J. Thraves, F.R.I.B.A., Whitefriars House, Friar-lane, Nottingham.

LONG EATON.—Messrs. F. Perks and Son, of Long Eaton, have secured the tender for rebuilding the Scala Theatre, Long Eaton, which was destroyed by fire early in December last year. The cost is estimated at £10,000.

MANCHESTER.—Reconstruction of Manchester Hippodrome, Oxford-street and Great Bridgwater-street, into a cinema, is proposed by Granada (Manchester), Ltd., 36, Golden-square, W.1. Messrs. Benslyn and Morrison, F. and A.R.I.B.A., 17, Easy-row, Birmingham, are the architects, and Messrs. Bovis, Ltd., 35, High-street, Marylebone, W.1, are the contractors. The estimated cost is £100,000.

PINNER.—Harrow U.D.C. have approved plans submitted by Messrs. Emden, Egan and Co., architects, 7, Garrick-street, W.C.2, for a cinema to seat approximately 2,000 persons in the High-street. The promoters are Pinner Cinema Co., 357, Pinner-road, North Harrow. The contract has not yet gone out to tender.

REDRUTH.—A contract has been placed with Messrs. Carkeek and Sons, Ltd., of Plymouth, for the foundations for the cinema proposed in Fore-street. Plans for the house, which will seat 1,200, have been prepared by Mr. W. H. Watkins, F.R.I.B.A., Sun-buildings, 1, Clare-street, Bristol.

SUTTON-IN-ASHFIELD. — Aleph Entertainments, Ltd., are to erect in Forest-street a super-theatre and cinema. A large car park is being included in the scheme. The architect is Mr. Alfred J. Thraves, F.R.I.B.A., Whitefriars House, Friar-lane, Nottingham.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1935.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Crafts-men.	Lab-ourers.
Aberdare	1/5	1/0¾
Abergavenny	1/5	1/0¾
Abingdon	1/4	1/0
Accrington	1/5½	1/1¼
Aldeburgh	1/1½	10¼
Aldershot	1/2½	11
Alfreton	1/5½	1/1¼
Alnwick	1/4½	1/0½
Altrincham	1/5½	1/1¼
Amble	1/4½	1/0½
Amersham	1/3½	11¾
Ammanford	1/5½	1/1¼
Andover	1/2½	11
Arundel	1/3	11¼
Ascot	1/3½	11¾
Ashby-de-la-Zouch	1/4	1/-
Ashford (Kent)	1/2½	11
Ashford (Middx.)	1/4½	1/0½
Ashington	1/4½	1/0½
Ashtead	1/4	1/-
Ashton-under-Lyne	1/5½	1/1¼
Aylesbury	1/3	11¼
Aylsham	1/2½	11
Bagshot	1/2½	11
Banbury	1/3	11¼
Barnsley	1/5½	1/1¼
Barnstaple	1/3½	11¾
Barrow-in-Furness	1/5½	1/1¼
Barry	1/5½	1/1¼
Basingstoke	1/3	11¼
Bath	1/4½	1/0½
Batley	1/5½	1/1¼
Beaconsfield	1/3½	11¾
Beccles	1/2	10½
Bedford	1/4½	1/0½
Berkhamsted	1/3	11¼
Berwick	1/4½	1/0½
Beverley	1/5½	1/1¼
Bexhill-on-Sea	1/3½	11¾
Bideford	1/3½	11¾
Biggleswade	1/3	11¼
Billericay	1/3	11¼
Birchington	1/3	11¼
Birkenhead	1/7†	1/2½
Birmingham	1/5½	1/1¼
Bishop Auckland	1/5	1/0¾
Bishops Stortford	1/4	1/0
Blackburn	1/5½	1/1¼
Blackpool	1/5½	1/1¼
Blyth	1/5½	1/1¼
Bognor Regis	1/3	11¼
Bolton	1/5½	1/1¼
Bournemouth	1/4½	1/0½
Bracknell	1/3	11¼
Bradford	1/5½	1/1¼
Bradford-on-Avon	1/2½*	11
Braintree	1/3½	11¾
Brentwood	1/5	1/0¾
Bridgwater	1/3½	11¾
Bridlington	1/5	1/0¾
Brighouse	1/5½	1/1¼
Brighton	1/4½	1/0½
Bristol	1/5½	1/1¼
Broadstairs	1/3	11¼
Bromsgrove	1/4½	1/0½
Bromyard	1/2	10½
Buckley	1/5½	1/1¼
Bungay	1/1½	10¼
Burnham-on-Crouch	1/2	10½
Burnley	1/5½	1/1¼
Burslem	1/5½	1/1¼
Burton-on-Trent	1/5½	1/1¼
Bury	1/5½	1/1¼
Bury St. Edmunds	1/3	11¼
Buxton	1/5	1/0¾
Byfleet	1/3½	11¾
Cambridge	1/5	1/0¾
Canterbury	1/3	11¼
Cardiff	1/5½	1/1¼
Carlisle	1/5½	1/1¼
Carnforth	1/5½	1/1¼
Castleford	1/5½	1/1¼
Caterham	1/4	1/-
Chard	1/2½*	11
Chatham	1/4	1/-
Chelmsford	1/4	1/-
Cheltenham	1/4	1/-
Chepstow	1/4½	1/0½
Chertsey	1/4	1/-
Chester	1/5½	1/1¼
Chesterfield	1/5½	1/1¼
Chichester	1/3	11¼
Chorley	1/5½	1/1¼
Cirencester	1/3*	11¼
Clacton	1/3½	11¾
Cleveleys	1/5½	1/1¼
Clitheroe	1/5½	1/1¼
Cobham	1/4	1/-
Colchester	1/4½	1/0½
Colwyn Bay	1/4½	1/0½
Congleton	1/5	1/0¾
Coventry	1/5½	1/1¼
Cranbrook	1/2	10½
Cranleigh	1/2½	11
Crawley	1/3	11¼
Crewe	1/4½	1/0½
Cromer	1/2½	11
Crowborough	1/3	11¼
Cuckfield	1/3	11¼
Darlington	1/5½	1/1¼
Darwen	1/5½	1/1¼
Daventry	1/4	1/-
Deal	1/3	11¼
Denbigh	1/4	1/-
Derby	1/5½	1/1¼
Devizes	1/2*	10½
Dewsbury	1/5½	1/1¼
Didcot	1/3½	11¾
Diss	1/2	10½
Doncaster	1/5½	1/1¼
Dorchester	1/3*	11¼
Dorking	1/3½	11¾
Dover	1/3	11¼
Dovercourt	1/3½	11¾
Driffield	1/4	1/-
Droitwich	1/4½	1/0½
Dudley	1/5½	1/1¼
Dunstable	1/3½	11¾
Durham City	1/5½	1/1¼
Eastbourne	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5	1/0¾
East Grinstead	1/3½	11¾
Edenbridge	1/3	11¼
Ely	1/2	10½
Epping	1/4½	1/0½
Exeter	1/4½†	1/0½
Exmouth	1/3½	11¾
Fakenham	1/2	10½
Falmouth	1/4	1/-
Fareham	1/3	11¼
Faversham	1/2½	11
Felixstowe	1/4	1/-
Filey	1/4	1/-
Fleetwood	1/5½	1/1¼
Flint	1/5	1/0¾
Folkestone	1/3	11¼
Frinton-on-Sea	1/3½	11¾
Frome	1/2½*	11
Gainsborough	1/4½	1/0½
Gateshead	1/5½	1/1¼
Gillingham	1/4	1/0
Glossop	1/5	1/1¼
Gloucester	1/4½†	1/0½
Godalming	1/3½	11¾
Goole	1/4½	1/0½
Gosport	1/4½	1/0½
Grantham	1/4	1/-
Gravesend	1/5	1/0¾
Gt. Yarmouth	1/3½	11¾
Grimsby	1/5½	1/1¼
Guildford	1/3½	11¾
Guilsborough	1/4	1/-
Halifax	1/5½	1/1¼
Hanley	1/5½	1/1¼
Harpenden	1/4	1/-
Harrogate	1/5½	1/1¼
Hartlepools	1/5½	1/1¼
Harwich	1/3½	11¾
Haslemere	1/2½	11
Hastings	1/3	11¼
Hatfield	1/4½	1/0½
Haywards Heath	1/3	11¼
Hednesford	1/5	1/0¾
Hemel Hempstead	1/4½	1/0½
Henley	1/3½	11¾
Hereford	1/3½*	11¾
Herne Bay	1/3	11¼
Hertford	1/4½	1/0½
Heysham	1/5½	1/1¼
Hitchin	1/4	1/-
Hoddesdon	1/4½	1/0½
Holt	1/1½	10¼
Horley	1/3	11¼
Horsham	1/3	11¼
Horwich	1/5½	1/1¼
Huddersfield	1/5½	1/1¼
Hull	1/5½	1/1¼
Hunstanton	1/2	10½
Huntingdon	1/2½	11
Ilfracombe	1/3½	11¾
Ingatestone	1/3	11¼
Ipswich	1/4½	1/0½
Isle of Thanet	1/3	11¼
Isle of Wight	1/2½	11
Keighley	1/5½	1/1¼
Kenilworth	1/5½	1/1¼
Kettering	1/5	1/0¾
Kidderminster	1/4½	1/0½
King's Lynn	1/3	11¼
Kirkham	1/5½	1/1¼
Knowle	1/5	1/0¾
Lancaster	1/5½	1/1¼
Leamington	1/5	1/0¾
Leatherhead	1/4½	1/0½
Leeds	1/5½	1/1¼
Leicester	1/5½	1/1¼
Leighton Buzzard	1/2½	11
Letchworth	1/4	1/-
Lewes	1/2	10½
Lichfield	1/4½	1/0½
Lincoln	1/5½	1/1¼
Littlehampton	1/3	11¼
Liverpool	1/7‡	1/2½
Llandudno	1/4½	1/0½
Llanelly	1/5½	1/1¼
London—		
12 m. radius	1/7*	1/2¼
12-15 m. radius	1/6½*	1/2
Long Eaton	1/5½	1/1¼
Longton	1/5½	1/1¼
Loughborough	1/5½	1/1¼
Louth	1/4	1/-
Lowestoft	1/3½	11¾
Luton	1/5	1/0¾
Macclesfield	1/5	1/0¾
Maidenhead	1/4	1/-
Maidstone	1/4	1/-
Malvern	1/4	1/-
Manchester	1/5½	1/1¼
Manningtree	1/2	10½
Mansfield	1/5½	1/1¼
March	1/2½	11
Margate	1/3	11¼
Market Harborough	1/4½	1/0½
Matlock	1/4	1/-
Melton Constable	1/1½	10¼
Melton Mowbray	1/4½	1/0½
Merthyr Tydfil	1/5	1/0¾
Middlesbrough	1/5½	1/1¼
Middleton	1/5½	1/1¼
Middlewich	1/4½	1/0½
Milford Haven	1/3½	11¾
Morecambe	1/5½	1/1¼
Morley	1/5½	1/1¼
Mundesley	1/2½	11
Nantwich	1/4½	1/0½
Newark-on-Trent	1/4½	1/0½
Newbury	1/3	11¼
Newcastle-on-Tyne	1/5¼	1/1¼
Newcastle-u.-Lyme	1/5½	1/1¼
New Forest	1/2½	11
Newmarket	1/3½	11¾
Newport, Mon.	1/5½	1/1¼
Newport Pagnell	1/2½	11
Northampton	1/5½	1/1¼
Norwich	1/5	1/0¾
Nottingham	1/5½	1/1¼
Nuneaton	1/5½	1/1¼
Oakham	1/4	1/-
Oldham	1/5½	1/1¼
Ormskirk	1/5½	1/1¼
Oxford	1/5	1/0¾
Oxted	1/2½	11
Paignton	1/5	1/0¾
Peterborough	1/5	1/0¾
Plymouth	1/5½†	1/1¼
Pontypridd	1/5	1/0¾
Portsmouth	1/4½	1/0½
Port Talbot	1/5½	1/1¼
Preston	1/5½	1/1¼
Pulborough	1/2	10½
Ramsgate	1/3	11¼
Reading	1/4½	1/0½
Redcar	1/5½	1/1¼
Redditch	1/4½	1/0½
Redhill	1/3½	11¾
Reigate	1/3½	11¾
Retford	1/4	1/-
Ripon	1/4	1/-
Rochdale	1/5½	1/1¼
Rochester	1/4	1/0
Rugby	1/5½	1/1¼
Saffron Walden	1/2	10½
St. Albans	1/5	1/0¾
St. Helens	1/5½	1/1¼
St. Neots	1/2½	11
Salisbury City	1/2½*	11
Salisbury Plain	1/2½*	11
Sawbridgeworth	1/3½	11¾
Saxmundham	1/1½	10¼
Scarborough	1/5	1/0¾
Selby	1/5½	1/1¼
Sevenoaks	1/4	1/-
Sheerness	1/3	11¼
Sheffield	1/5½	1/1¼
Shipley	1/5½	1/1¼
Shoeburyness	1/5	1/0¾
Shoreham	1/4	1/-
Shrewsbury	1/4½	1/0½
Sittingbourne	1/2½	11
Skegness	1/4½	1/0½
Sleaford	1/4	1/-
Slough	1/4½	1/0½
Southampton	1/4½	1/0½
Southend on Sea	1/5	1/0¾
Southport	1/5½	1/1¼
South Shields	1/5½	1/1¼
Spalding	1/3	11¼
Stafford	1/5	1/0¾
Staines	1/4½	1/0½
Stamford	1/4	1/-
Stevenage	1/4	1/-
Stockport	1/5½	1/1¼
Stockton-on-Tees	1/5½	1/1¼
Stoke-on-Trent	1/5½	1/1¼
Stourbridge	1/5	1/0¾
Stourport	1/4½	1/0½
Stowmarket	1/2	10½
Stratford-on-Avon	1/4	1/-
Stroud	1/4†	1/-
Sunderland	1/5½	1/1¼
Sutton Coldfield	1/5½	1/1¼
Swaffham	1/1½	10¼
Swanage	1/3½*	11¾
Swansea	1/5½	1/1¼
Swindon	1/4*	1/-
Tamworth	1/5	1/0¾
Taunton	1/3½	11¼
Tenterden	1/2½	11
Tewkesbury	1/4*	1/-
Thetford	1/2	10½
Thorpe Bay	1/5	1/0¾
Todmorden	1/5½	1/1¼
Tonbridge	1/4	1/0
Torquay	1/5	1/0¾
Totnes	1/3½†	11¾
Trowbridge	1/2½*	11
Truro	1/2½	11
Tunbridge Wells	1/4	1/-
Uppingham	1/4	1/-
Uttoxeter	1/4	1/-
Wakefield	1/5½	1/1¼
Walsall	1/5½	1/1¼
Walsden	1/5½	1/1¼
Walton-on-Naze	1/3½	11¾
Ware	1/4½	1/0½
Warminster	1/2½*	11
Warrington	1/5½	1/1¼
Warwick	1/5	1/0¾
Wellingborough	1/5	1/0¾
Wells (Norfolk)	1/1½	10¼
Welwyn	1/4½	1/0½
Welwyn Gar.City	1/5½	1/1¼
West Bromwich	1/5½	1/1¼
Westcliff-on-Sea	1/5	1/0¾
Weston-super-Mare	1/4½	1/0½
Weybridge	1/4	1/-
Weymouth	1/3*	11¼
Whitby	1/4½	1/0½
Whitstable	1/3	11¼
Widnes	1/5½	1/1¼
Wigan	1/5½	1/1¼
Wigton	1/4	1/-
Wellington	1/5	1/0¾
Wilmslow	1/5½	1/1¼
Winchester	1/3½	11¾
Windermere	1/4	1/-
Windsor	1/4½	1/0½
Wisbech	1/2½	11
Witham	1/3½	11¾
Woking	1/3½	11¾
Wokingham	1/3½	11¾
Wolverhampton	1/5½	1/1¼
Woodbridge	1/2½	11
Worcester	1/4½	1/0½
Workington	1/4	1/-
Worksop	1/4½	1/0½
Worthing	1/3	11¼
Wrexham	1/5	1/0¾
Wroxham	1/3	11¼
Wycombe	1/4	1/-
Wymondham	1/2	10½
Yeovil	1/3½*	11¾
York	1/5½	1/1¼

* Painters, 1d. less than other Craftsmen. † Painters, ½d. less than other Craftsmen. ‡ Plasterers, 1s. 8d.

For Building Trade Wages in Scotland, see page 525.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in come cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MARCH 18.

Abergele and Pensarn.—Houses.—50, at Berthtopic and Llyn Morfa, also construction of roads and sewers, for U.D.C. R. O. Roberts, E. and S. Dep. £2 2s.

Auchterarder.—Houses.—6 three-apartment, 4 three-apartment, 2 four-apartment semi-detached, 4 two-apartment flatted, for T.C. Stewart & Paterson, architects, 16, Blythswood-sq., Glasgow, C.2. Dep. £2 2s.

Belfast.—Pavilion.—For Board of Management of Royal Victoria Hospital. Young & Mackenzie, architects, 143, Scottish Provident-bldgs., Belfast. Dep. £5 5s.

Blackburn. — Erection. — Of additions to Queen Elizabeth's Grammar school, for C.B. B.E. Dep. £1.

Carlisle. — Temporary Hangar.—At Kingstown Aerodrome, for T.C. City S., 18, Fisher-st.

Clacton.—Surfacing.—Of proposed car park and construction of conveniences, office, etc., for U.D.C. W. Aiston, S.

Crewe.—Construction.—Of open-air swimming baths in Queen's Park, for T.C. Leonard Reeves, B.E. and S. Dep. £2 2s.

Dover.—Alterations.—And redecorations to Council offices, for T.C. F. G. Hayward, 3, Market-sq. Dep. £1 1s.

Egham.—Erection.—Of cemetery superintendent's lodge, with drains, fencing and other works, at public cemetery, St. Jude's-rd., Englefield Green, for U.D.C. E. and S. Dep. £2 2s.

Glasgow.—Employment Exchange.—At Cambuslang, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh, 2. Dep. £1 1s.

Gravesend.—Redecorations.—Alterations and repairs to public swimming baths, for T.C. Borough Architect, 5, Woodville-ter.

Guildford. — Additions. — And alterations to schools, for T.C. Secretary. Dep. £2.

Hoo.—External Painting.—Of 204 houses and hospital, for R.D.C. W. J. Stimpson, Council Offices, Hoo. Dep. £2 2s.

Ilford.—Erection.—Of practical instruction building at Loxford central school, Eton-rd., for T.C. Architect. Dep. £3 3s.

Leicester.—Erection.—Of north wing and central block at colleges of art and technology, for T.C. F. P. Armitage. Dep. £2 2s.

Liverpool.—Alterations.—And additions at Aigburth Vale high school, for T.C. Land Steward and Surveyor (Architectural Dept.). Dep. £2 2s.

Ludlow.—Cement Roughcasting.—And repair of 10 houses on Ludlow-rd., Cleobury Mortimer, for U.D.C. C. S. Asbury, Clerk, 5, Old-st.

Macclesfield.—Dwellings.—34, on Moss-ln. housing estate, for T.C. Edward Hamson, architect. Dep. £2.

Maidenhead.—Various Works.—At Isolation Hospital, for T.C. B.S. Dep. £3 3s.

Merthyr Tydfil.—Temporary School Buildings.—At Georgetown, Gellifaelog, and Queen's-rd. schools, with alterations and additions to latrines, and other works, for T.C. B.E. Dep. £3.

Middlesbrough. — Underground Convenience.—At Carter Park, West-lane, for T.C. S. E. Burgess, M.Inst.C.E., B.E. and S. Dep. £2 2s.

Morecambe Heysham.—Erection.—Of Balmoral senior school, for T.C. B.S. Dep. £3 3s.

Newark.—Painting.—And decorating work to premises at bathing pool, for T.C. John H. Clarke, B.S.

Nuneaton.—Convenience.—In Mill-walk, for T.C. B.S. Dep. £2 2s.

Portsmouth.—Sports Pavilion.—Adjoining bowling green, Northern-rd, Cosham, for T.C. City E. Dep. £1 1s.

Samford.—Painting.—And outside wood and iron work of 18 bungalows at Shotley, 13 at Brantham, 6 at Stratford St. Mary, and 6 at Stutton, for R.D.C.

Sheffield.—Transformer Sub-station.—In Archer-rd., for T.C. A. C. Bostel, acting general manager. Dep. 10s. 6d.

Shrewsbury.—Alterations.—In conversion of old St. Michael's school to men's hostel, for T.C. A. W. Ward. B.S.

Southend-on-Sea.—Mess Room.—Paying room and office at cemetery, Sutton-rd., for T.C. Robt. H. Dyer, B.E. Dep. £1.

Stoke-on-Trent.—Exterior.—And interior decoration to relief offices, Church-st., Tunstall, and Raglan-st., Fenton, for T.C. Chief Architect, City Architectural Dept., Kingsway-chams., Kingsway.

Tullamore.—Houses,—146, for U.D.C. Hoey & Denning, T.C.s, County-bldgs., Tullamore, Offaly. Dep. £2 2s.

Wirral.—Houses.—10 parlour and 12 non-parlour type, at Heswall, and construction of reinforced concrete road, also 120 lin. yds. of 6-in. dia. sewers, for U.D.C. S. Dep. £1 1s.

MARCH 19.

Brighton.—Houses.—Pair, on north side of Court Farm-rd., Rottingdean, for T.C. B.E. Dep. £2 2s.

Glasgow.—Employment Exchange.—At Cambuslang, for H.M.O.W. Architect, H.M. Office of Works, 122, George-st., Edinburgh, 2. Dep. £1 1s.

Guildford.—Dairy.—To cost approx. £8,500, for Co-operative Society, Haydon-pl., Guildford. C. Moore, Secretary.

Huddersfield. — Lavatories. — At balcony level, Market Hall, for T.C. B.E.

Hull. — Building. — Of George-st. sub-station annexe and structural alterations to Dansom-ln. sub-station, for T.C. J. N. Waite, general manager and engineer, Electricity Offices, Ferensway, Hull. Dep. £1.

Ipswich.—Conveniences.—At Chantry-pk. and office, mess room and store at Christchurch-pk., for T.C. E. McLauchlan, B.S. and Water E.

Little Lever.—Houses.—26, and 4 bungalows, on Masefield-rd. estate, for U.D.C. T. Grant, S. Dep. £2 2s.

Macroom.—Houses.—32, in 2 lots, for U.D.C. J. Collins, architect, Gurtenroe. Dep. 10s.

Mildenhall.—Houses.—At Icklington, for R.D.C. A. V. Llewellyn, clerk.

Middlesex.—Redecorative.—And maintenance work to exterior of Middlesex County Hospital, Isleworth, for C.C. E. Hart, Guildhall, London, S.W.1. Dep. £2 2s.

Shoreham-by-Sea. — Erection. — Of wing walls, piers and entrance gates at Buckingham Park, for U.D.C. J. Dunn, S.

***Stoke-on-Trent.**—Erection.—Of 198 houses, for T.C. Chief Architect, Architectural Dept., Kingsway-chams. Dep. £2.

Sunderland.—Erection.—Of a parole villa and two convalescent homes at Borough Mental Hospital, Ryhope, for C.B. Wm. & T. R. Milburn, architects, 17, Fewcett-st. Dep. £5 5s.

Tipperary.—Dwellings.—124, for T.C. T.C. Dep. £5 5s.

Wareham (Dorset).—Erections.—Of post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

MARCH 20.

Belfast.—General Repairs.—To labourers' cottages, for R.D.C. R. G. Jackson, clerk, Council Offices, Union Workhouse.

Biggleswade.—Erection.—Of 28 houses, for R.D.C. F. C. Levitt, architect, Market-sq. Dep. £2 2s.

Brighton. — Erection. — Of 68 small houses on Manor Farm estate, for C.B. B.S. Dep. £2 2s.

Oswestry.—Houses.—24, at Park Hall, Whittington, for R.D.C. C. B. Barnes, E. Dep. £5 5s.

***Hertford.**—Construction.—Of engineer's workshop, etc., boundary walls, alterations to gateway, and other works at Hempstead House Public Assistance Institute, for C.C. Clerk. Dep. £2 2s.

***Middlesbrough.**—Installations.—Of low-pressure hot water heating at Acklam Hall, for E.C. T.C.

***Middlesbrough.** — Installations.—Domestic hot water supply at Acklam Hall, for E.C. T.C.

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Plymouth.—Alterations.—To sanitary conveniences at East-st. school, Johnston-ter. school, Camel's Head school, for T.C. City Architect, Rowe-st.

MARCH 21.

Chesterfield.—Conversion.—Of building in Lords-mill-st., Chesterfield, into juvenile construction centre, for Derbyshire C.C. George H. Widdows, County Architect, County Offices, Derby. Dep. £2 2s.

Donabate.—Erection.—Of 8 two-story dwelling-houses for members of staff at Portrane mental hospital, for Joint Committee of Grangegorman Mental Hospital. Vincent Kelly, F.R.I.B.A., 87, Merrion-sq. South, Dublin. Dep. £3 3s.

Glasgow.—Works.—In connection with Gorbals Child Welfare Clinic, for T.C., various trades. Office of Public Works, City Chambers, Room 81. Dep. £2 2s.

Glasgow.—Houses.—122, at Hillingdon Park, No. 2, for T.C. D. Stenhouse, T.C.

Gloucester.—Decorative Repairs.—At 14 houses, Churchdown, and 6 houses at Upton St. Leonards, for R.D.C. Herbert H. Scott, clerk, Berkeley-chams., Berkeley-st.

Haverhill.—Houses.—8, on Mill Hill site, for U.D.C. S. Dep. £1 1s.

Kidderminster.—Extension.—Of post office and erection of garage, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Newtyle.—Additions.—To school, for Angus C.C. Master of Works, County-bldgs., Forfar.

Redruth.—General Repairs.—And external painting at Poor Law Institution, for Cornwall C.C. S. Pool, County Architect, County Hall, Truro.

MARCH 22.

Aspley Heath.—Handicraft Rooms.—At Council school, for Bedfordshire C.C. C.S., Shire Hall, Bedford. Dep. £1 1s.

Bathavon. — External Painting.—And internal decoration 24 houses at Keynsham, and 6 at Saltford, for R.D.C. H. W. Argile, Building S., 16, High-st.

Bedford.—Erection.—Of handicraft rooms at Apsley Heath Council School, for C.C. County Surveyor. Dep. £1 1s.

Congleton.—Construction.—Of open-air swimming bath and paddling pool, for T.C. J. Hood, B.S. Dep. £5.

Croghan Hill.—Houses.—For Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin. Dep. £1.

Durham.—Additions.—And alterations to Birtley Ravensworth-ter. Council school, for C.C. F. Willey, F.R.I.B.A.

Folkestone.—Erection.—Of Sun-walk, for T.C. E. L. Allman, B.E. Dep. £2 2s.

Monmouth.—Houses.—40, at Rockfield-rd., for T.C. B.S., 3, St. James-st. Dep. £2 2s.

Nottingham.—Erection.—1,000 houses on Broxtowe-lane estate, for T.C. T.C. Dep. £1

Potton.—Houses.—20, for Land Settlement Assoc., Biggleswade.—F. C. Levitt, architect, Biggleswade. Dep. £2 2s.

Welwyn Garden City.—Erection.—Of 86 houses, for U.D.C. B. H. Deamer, clerk. Dep. £2 2s.

MARCH 23.

Bristol.—Houses.—70, on Bedminster housing site, and 8 houses at The Dings, for T.C. City E. Housing Dept., 51, Prince-st. Dep. £1.

Chingford.—Sports Pavilion.—And small conveniences at South Chingford, for U.D.C. S. J. Hellier, E. and S. Dep. £2 2s.

Dorchester.—Erection.—Of 4 wards and sanitary block, also alterations and additions to nurses' existing sleeping quarters, at isolation hospital, Herringston-rd., for T.C. B.S. Dep. £2 2s.

Millstreet.—Painting.—Of Carnegie Library, for Cork County Library Committee. Donal Cronin, County Librarian, 18, Dyke-parade, Cork.

Tideswell.—School.—For Derbyshire C.C. George H. Widdows, County Architect, County Offices, Derby. Dep. £2 2s.

MARCH 25.

Ashbourne.—Painting.—At maternity home, for Derbyshire C.C. George H. Widdows, County Architect, County Offices, Derby. Dep. £2 2s.

***Aylesbury.**—Alterations.—To head post office, for H.M.O.W. Room 65D, Third Floor, H.M. Office of Works, London, S.W.1. Dep. £1.

Benfleet.—Dressing-rooms.—And lavatory accommodation at playing fields, South Benfleet, for U.D.C. S. Dep. £1 1s.

Blackpool.—School.—At Pedders-lane, for T.C. B.S. Dep. £2.

***Bootle.**—Erection.—And completion of children's shelter, conveniences, railings, gates, walls, etc., at Miller's bridge playground, for C.B. B.E. Dep. £1.

***Bootle.**—Supply.—And delivery of approx. 350 tons Jersey gravel, 14 park seats, and playground apparatus, at site of Miller's bridge children's playground, for C.B. B.E.

***Brentwood.**—Erection.—And completion of open air swimming pool in North-rd., for U.D.C. E. and S. Dep. £5 5s.

Canterbury.—Erection.—Of 294 houses, for C.B. H. M. Enderby, E. and S. Dep. £2 2s.

Conisbro'. — Additional Classrooms.—At senior Council school, for West Riding C.C. Education Officer, County Hall, Wakefield.

Derby. — Extensions. — To Technical College, Normanton-rd., for C.B. C. H. Aslin, F.R.I.B.A. Dep. £1 1s.

***Esher.**—Erection.—Of 8 cottages in Sumner-rd., Thames Ditton, for U.D.C. Clerk. Dep. £3 3s.

Hemel Hempstead.—Erection.—Of 10 cottages, for R.D.C. T. H. Lighbody, L.R.I.B.A., Broadway Offices. Dep. £3 3s.

Horne.—Repair.—And adaptation of farm buildings at Home Farm, for East Suffolk C.C. County Land Agent, County Hall, Ipswich.

Huddersfield.—Houses.—176, on Alder-st. housing site, Fartown, for T.C. B.E. Dep. £2 2s.
Llanelly.—Nurses' Home.—And other additions at General Hospital. J. & B. E. Evans, architects and surveyors, Stepney-st. Dep. £3 3s.
✱**Middlesex.**—Erection.—Of elementary school in Green-rd., Southgate, for C.C. H. M. Walton, secretary, 10, Gt. George-st., London, S.W.1. Dep. £2 2s.
✱**Middlesex.**—Erection.—Of elementary school in East Kingsbury, for C.C. H. M. Walton, secretary, 10, Gt. George-st., London, S.W.1. Dep. £2 2s.
Penryn (Cornwall).—Flats.—16, at Tremough, for T.C. C. R. Corfield, A.R.I.B.A., Falmouth. Dep. £2 2s.
Ross-on-Wye.—Convenience.—In "The Crofts," for U.D.C. C. H. Caddick, T.S. Dep. £2 2s.
Tipperary.—Electrical Installation.—At county hospital, Cashel, for County Board of Health. Vincent Kelly, F.R.I.B.A., architect, 87, Merrion-sq., Dublin. Dep. £15 15s.
Tipperary.—Installation.—Of heating on low-pressure system and hot water services, and providing laundry and kitchen equipment at county hospital, for County Board of Health. Vincent Kelly, F.R.I.B.A., architect, 87, Merrion-sq., Dublin. Dep. £15 15s.
Yorkshire.—Works.—At Conisborough senior school, additional classrooms; Otley Newall infants' school, installation of low pressure hot water apparatus and electric lighting; Harrogate grammar school, additional cycle accommodation; Hemsworth senior mining centre, installation of heating and electric lighting; Knaresborough King James' grammar school, dressing accommodation, for West Riding C.C. Education Officer, County Hall, Wakefield.

MARCH 26.

Clonearl.—Houses.—2, for Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin. Dep. £1.
✱**Northampton.**—Erection.—Of 5 blocks flats (55 flats), for C.B. B.E. Dep. £5.
Raheenglass.—Houses.—For Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin. Dep. £1.
Southall-Norwood.—Temporary Additions.—To town hall, for U.D.C. J. B. Thomson, E. and S., Town Hall, Southall.
Welshpool.—Erection.—Of 12 houses, 13 farm buildings and other works, for Montgomery C.C. Clerk. Dep. £3 3s.
Westmeath.—Houses.—4 dwelling, and 4 out-offices at Ranaghan and Collinstown, for Irish Land Commission. M. Deegan, secretary, Upper Merrion-st., Dublin.

MARCH 27.

Barking.—Erection.—Of elementary school and other works in Sandringham-rd., for C.B. H. & H. Dawson and H. W. Allardyce, Clock House-chams. Dep. £5.
Herne Bay.—Public Shelter.—And conveniences at St. George's-parade, for U.D.C. B. J. Wormleighton, F.S.I. Dep. £1 1s.
✱**Liverpool.**—Erection.—Of 72 flats on Upper Frederick-st.-Duncan-st., for T.C. Director of Housing. Dep. £2 2s.
Wandsworth.—Erection.—Of 25 flats in Frogmore and Ash Tree-gr., for B.C. Geo. L. Elkington, F.R.I.B.A., Norfolk House, 7, Laurence Pountney-hill, E.C.4. Dep. £1 1s.

MARCH 28.

Lambeth.—Construction.—Of underground convenience at Rushcroft-rd., Brixton, for B.C. B.E. and S., Brixton-hill, S.W.2. Dep. £1 1s.
Lambeth.—Erection.—Of 63 tenements in 3 blocks, for B.C. B.E., Brixton-hill, S.W.2. Dep. £3 3s.
Leighton Buzzard.—Cottages.—6, on Mill-rd. and Edward-st. housing site, for U.D.C. B. H. Robjant, S. Dep. £2 2s.
Middleton-in-Wharfedale.—House.—Farm buildings, additions, alterations and repairs to existing buildings at Sanatorium Farm, Wakefield, for West Riding C.C. County Land Agent, Wakefield.

MARCH 29.

Birmingham.—Alterations.—To sanitary block, female 4 ward, first floor, and female 5 ward, ground floor, at Winson Green Division, Lodge-rd., for T.C. F. H. C. Wiltshire, clerk. Dep. £3 3s.
Romford.—Erection.—Of 40 houses and flats on Rush Green-rd. estate, for U.D.C. E. and S., 110, Market-pl. Dep. £3 3s.
✱**West Ham.**—Erection.—Of 70 houses on Greengate site, for C.B. B.E. Dep. £1.
✱**West Ham.**—Erection.—Of 56 houses on Devonshire-rd. site, for C.B. B.E. Dep. £1.

MARCH 30.

Cardigan.—Court House.—For Standing Joint Committee of Cardiganshire C.C. C.S., Horeb, Llandyssul.
✱**Coventry.**—Erection.—Of 67 houses on Radford housing estate, for T.C. A. F. Underhill, L.R.I.B.A. Dep. £3 3s.
✱**Faversham.**—Erection.—Of 10 houses on Orchard View, Teynham, housing site, for R.D.C. A. J. Hurn, Sanitary Surveyor, 20, West-st. Dep. £3 3s.
Gainsborough.—Houses.—52, on Wilson-st. housing site, for U.D.C. S. Algar, E. and S. Dep. £2 2s.
Hanley.—Repairs.—To houses, for Stoke-on-Trent T.C. Chief Sanitary Inspector, St. Peter's-chambs., Glebe-st., Stoke-on-Trent.
✱**Slough.**—Erection.—Of communal hall, etc., for U.D.C. E. and S.
Stoke-on-Trent.—Repairs.—To houses in Hanley, for T.C. Chief Sanitary Inspector, St. Peter's-chams., Glebe-st.

APRIL 1.

✱**Durham.**—Sinking 22-in. Borehole, etc.—At County Mental Hospital. Clerk, Winterton, Stockton-on-Tees. Dep. £1 1s.
✱**Durham.**—Deep Well.—Borehole turbine pump, etc., at County Mental Hospital. Clerk, Winterton, Stockton-on-Tees. Dep. £1 1s.
✱**Marlborough.**—Erection.—Of 6 houses at Fyfield, Wilts, for R.D.C. W. Strickland, S. Dep. £1 1s.
Towyn.—Court Room.—And alterations to existing police buildings, for Merioneth Standing Joint (Police) Committee. N. L. Jones, County Architect, County Offices, Dolgelley. Dep. £3 3s.

APRIL 5.

Essex.—Erection.—Of public assistance institution, Suttons-lane, Hornchurch, for C.C. J. Stuart, F.R.I.B.A., Chelmsford. Dep. £10 10s.

APRIL 6.

✱**East Grinstead.**—Provision.—And erection of shop front and interior fitting at 146, London-rd., for electricity showrooms, for U.D.C. E. and S.

APRIL 8.

✱**Lichfield.**—Erection.—Of 14 houses at Curborough-rd., for City Council. C. T. Read. Dep. £2 2s.

APRIL 17.

✱**London.**—Construction.—And completion of public baths and washhouses on site bounded by Seymour-pl., Bryanston-pl. and Shouldham-st., W.1, for St. Marylebone B.C. A. W. S. and K. M. B. Cross, 45 and 46, New Bond-st., W.1. Dep. £10.

NO DATE.

Rawmarsh.—Houses.—42, at Green-ln. housing estate, and construction of about 340 lin. yds. of roads, for U.D.C. J. R. S. Creighton, architect. Dep. £2.

MATERIALS, etc.

MARCH 18.

Audenshaw.—Concrete Flags.—For U.D.C. S.
Bredbury and Romiley.—Granite Macadam.—For U.D.C. S.
Cleethorpes.—Road Materials.—For U.D.C. L. W. Pye, E. and S.
Edmonton.—Road Tar.—For U.D.C. E.
Leigh.—Road Materials.—For T.C. T. A. Clare, B.E. and S.
Newburn.—Highway Materials.—For U.D.C. S.

MARCH 19.

Epsom and Ewell.—Surface Dressing Materials.—for U.D.C. Norman Auty, S.
Heanor.—Broken Granite.—For U.D.C. E. and S.
Turton.—Granite Macadam.—For U.D.C. Reginald Dart, S.

MARCH 20.

Braintree.—Portland Cement.—For U.D.C. H. Cook, E. and S., Town Hall.
Consett.—Road Materials.—For U.D.C. S.
Waterloo-with-Seaforth.—Granite Chippings.—For U.D.C. J. R. Fothergill, E. and S.

MARCH 21.

Altrincham.—Welsh Granite Macadam.—For U.D.C. S.

MARCH 22.

Wilmslow.—Tarred Granite.—For U.D.C. A. S. Cartwright, S.

MARCH 23.

Hetton.—Road Materials.—For U.D.C. S.
Wallsend.—Road Materials.—For T.C. B.S. Dep. £2 2s.

ENGINEERING, IRON AND STEEL

MARCH 18.

Aberdeen.—Widening.—Of Maberly-st., by bridging over L.N.E.R. (main north line) at Tunnel Portal, for T.C. City E. Dep. £2 2s.

MARCH 20.

Hove.—Reconstruction.—Of Olive-rd. bridge, for T.C. T. R. Humble, B.S. Dep. £2 2s.

MARCH 21.

South Shields.—Reconstruction.—Of bridge, for T.C. J. Reid, B.E. Dep. £2 2s.

MARCH 23.

Dublin.—Reconstruction.—Of Harberton bridge, Grand Canal, for T.C. City E., 28, Castle-st., Dublin. Dep. £2 2s.

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ROAD, SEWERAGE AND WATER WORKS.

MARCH 18.

Hoddesdon.—Making-up.—Of Park-rd., the works including carriageway, footways and kerbing, for U.D.C. W. Plumpton, S.
Huyton.—Widening.—And reconstruction of Twig-lane and Dinas-lane, for U.D.C. A. W. Thomas, S. Dep. £2 2s.
Market Bosworth.—Laying.—Of approximately 900 yds. of 9-in. sewer along Pretoria-rd., Ibstock, for R.D.C. H. G. Davey, S.
Wallasey.—Sewering.—And making St. Kildas-rd., Moreton, and making Southcroft-rd., for T.C. B.E. and S.

MARCH 19.

Caterham.—Making-up.—Of Heath-rd., for Caterham and Warlingham U.D.C. E. and S., Council Offices, Caterham Valley. Dep. £2 2s.
Southport.—Making Good.—Of Bakers-lane extension, for T.C. A. E. Jackson, B.E. Dep. £2 2s.

MARCH 20.

Bournemouth.—Laying.—Of asphalt surface in Holdenhurst-rd. and Ashley-rd., for T.C. F. P. Dolamore, B.E. Dep. £1 1s.
Guildford.—Making-up.—Of Grange-rd. and Echo Pit-rd., for T.C. B.S. Dep. £2 2s. (per road).
Watford.—Making-up.—Of Woodland-drive (Part 3), Orchard-drive, Swiss-ave., Swiss-close and Talbot-ave., for T.C. W. W. Newman, B.E. Dep. £3 3s.

MARCH 21.

Birkenhead.—Widening.—And reconstructing approx. 740 yds. lin. of old Chester-rd., for T.C. B. Robinson, B.E. and S. Dep. £5.
South Shields.—Private Street Works.—In various parts of City, for T.C. J. Reid, B.E. Dep. £2 2s.

MARCH 23.

Havant and Waterlooo.—Making-up.—And draining, of various roads, for U.D.C. E. Dep. £2 2s.
Havant and Waterloo.—Making-up.—And draining, of Durley-ave., Cowplain, and Winifred-rd., Waterlooville, for U.D.C. W. L. Hibberd, E. Dep. £2 2s.
Leatherhead.—Making-up.—Of Middle-rd., for U.D.C. E. and S. Dep. £1 1s.

MARCH 25.

Coulsdon and Purley.—Making-up.—Of Westwood-rd., Coulsdon, for U.D.C. S. Dep. £1 1s.
Horsham.—Making-up.—Of carriageway, footways, and providing and laying surface water drainage, for U.D.C. C. G. Atkinson, E. and S. Dep. £2 2s.
Southall-Norwood.—Reconstruction.—Of station approaches from Beaconsfield-rd. to Hortus-rd., for U.D.C. J. B. Thomson, E. and S., Town Hall, Southall, Middlesex. Dep. £2 2s.

MARCH 29.

✱**West Ham.**—Construction.—Of roads and sewers at Greengate housing and Devonshire-rd. site, for C.B. B.E. Dep. £1.

Public Appointments.

MARCH 18.

Acton.—Architectural Assistant (Temporary).—For B.C. T.C.
Croydon.—District Sanitary Inspector.—For C.B. T.C.
London.—Architectural Assistant.—For War Office. Under-Secretary of State (C.5), S.W.1.
London.—Architectural Assistants (Temporary).—For L.C.C. Architect, County Hall, S.E.1.
Truro.—Architectural Assistant (Temporary).—for T.C. F. A. Barnes.

MARCH 19.

Fulham.—Clerk of Works.—For B.C. T.C.

MARCH 20.

✱**Liverpool.**—Two Junior Architectural Assistants.—For T.C. T.C.
✱**Liverpool.**—Two Junior Quantity Surveying Assistants.—For T.C. T.C.

MARCH 22.

✱**Walthamstow.**—General Foreman (Temporary).—For B.C. T.C.

MARCH 23.

✱**Blackpool.**—Architectural Assistant (Temporary).—For C.B. T.C.
Norfolk.—Clerk of Works.—For C.C. County Architect, 23, Thorpe-rd., Norwich.

MARCH 25.

Canterbury.—Clerk of Works.—For C.B. H. M. Enderby, E. and S.
✱**Dewsbury.**—Architectural Assistant (Temporary).—For C.B. T.C.
Wood Green.—Architectural Assistant (Temporary).—For B.C. T.C.

MARCH 27.

Dorset.—Architectural Assistant (Temporary).—For C.C. Clerk, Dorchester.

MARCH 28.

✱**Derby.**—Architectural Assistant.—For C.B. C. H. Aslin, F.R.I.B.A.

MARCH 29.

✱**Isle of Man.**—Resident Engineer Surveyor.—For Development Board. T. H. Mawson & Son, High-st. House, Lancaster.

MARCH 31.

✱**Newcastle.**—Architect.—For E.C. Thos. Walling, Director of Education.

APRIL 2.

✱**Southampton.**—Three Architectural Assistants (Temporary).—For C.B. T.C.

MAY 30.

London.—Assistant Examiners in Patent Office. Secretary, Civil Service Commission, Burlington Gardens, W.1.

CURRENT & PROPOSED BUILDING WORK*

Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; B.S. for Borough Surveyor; B.E. for Borough Engineer; D.S. for District Surveyor; C. for Clerk; T.C. for Town Clerk; C.E. for County Engineer; C.S. for County Surveyor; S. for Surveyor; E. for Engineer.

Acton.—T.C. approved: W. Atkinson, 15, Balfour-rd., W.3, builder for club premises corner of Balfour and Cloister-rds.; G. A. Jellicoe, 38, John-st., W.C.1, architect for pavilion, Orbis Lawn Tennis Club, East Acton-lane.

Adwick-le-Street.—U.D.C. propose Council offices and swimming baths. S. to prepare plans.

Amersham.—P.C. to construct swimming bath at Dovecote Meadow at £1,000.

Ashton-under-Lyne.—Lancashire County P.A.C. propose additions to Darnton House Institution and Lake Hospital at £5,000. Plans by S. Wilkinson, F.R.I.B.A., County Architect, Preston.

Ashton-in-Makerfield.—U.D.C. propose 46 additional houses, Brocksteeds site. H. Busby, S.

Atherton.—U.D.C. propose 34 houses on Hag Fold estate. F. L. Boydell, S.

Avonmouth.—£7,000 to be spent on completing building of St. Andrew's Church. Architects are P. & M. Hartland Thomas, John-st., Bristol.

Banbury.—E.C. to provide school woodwork centre at £975.

Barrow.—T.C. approved: 24 houses on eastern side of Gloucester-st., between Moorfield-st. and Brook-st., for H. E. Tyson.

Billingham.—Housing Committee approved lay-out plan for 126 houses, Cowpen-ln.

Birkenhead.—T.C. approved 3,000 houses on Woodchurch estate.

Birmingham.—J. Bartlett, Sheldon Hall Farm, Tile Cross, Marston Green, proposing petrol-filling station, Cooke's-ln., Coleshill.—Parks and Cemeteries Committee to recommend to T.C. to erect crematorium in Lodge Hill Cemetery.

Blackburn.—E.C. propose an open-air school to accommodate 120 children at £10,000, also senior school in Shorrock-ln. to accommodate 400 children. Cost £16,000. Plans by W. Pickstone, B.E.

Blackwell.—R.D.C. considering purchase of housing sites at Upper Langwith and South Normanton.

Blyth.—T.C. proposes land near Kitty Brewster-rd. for rehousing of tenants.—T.C. to take steps to acquire land in Hodgsons-rd. for 124 houses. Plans by L. Leeper, B.E.

Bollington.—S. Gleave propose development of land opposite Waterhouse Mill, Wellington-rd., for 36 houses.

Bolton.—E.C. proposing dining room, outside storage, garage and lavatory accommodation at workshops for blind. Marsden-rd. Plans by Architects' Dept.

Brentford and Chiswick.—T.C. to purchase land in Boston Manor-rd., Brentford, for additional housing accommodation.—Consent received to borrowing for 60 additional houses, Syon-lane site.—Council recommend conversion of Carville Hall into 4 flats at £1,450.

Bristol.—T.C. to build smallpox hospital at Ham Green at £41,500. Tenders to be invited shortly.

Buxton.—£8,000 to be spent on scheme of reconstruction and improvement at Pavilion Gardens.

Cardiff.—Scheme costing £74,000 proposed for protecting Taf Fawr catchment area and for utilising water for Llwyn-on reservoir.

Chelmsford.—T.C. approved:—Eastern Counties Laundries, Ltd., extension to premises, Springfield-rd.

Cheltenham. — T.C. approved: — Cheltenham Original Brewery Co., reconstruction, 100, High-st.

Chesham.—Plans have been passed for bank in Broadway on site of premises vacated by Philbey & Peck.

Chester.—T.C. approved alterations for Governors of Queen's School at school.—Elementary Education Sub-Committee approved repairs and alterations at Boughton St. Paul's school.—City S. submitted lay-out plans for two-story flats for aged persons on land situate westerly side of Hoole-ln.

Chesterfield.—Housing Committee to erect 113 houses for aged persons and displaced tenants at Dunston-ln., Littlemoor (36); Devonshire-av., New Whittington (37); Broomhall Park (12); Brimington-rd., Whittington Moor (14); and Barker-ln., Brampton (14).—Lay-outs for housing estates off Ashgate-rd., for Longden & Hucknall; Gomersall-ln. and Chatsworth-rd., for Midland Estates Co., Ltd., submitted.—Clifford Bond, architect, 71a, Low Pavement, preparing plans for refreshment house, caretaker's lodge, storage and greenhouse in Eastwood-pk., Hasland, for Parks Committee.

Chippenham.—New ward block approved, Chippenham and Malmesbury Joint Isolation Hospital, at £3,500.—Plans approved for 50 houses, Langley-rd. and Greenway-ln., by Taylor & Woodrow, Ltd.

Colchester.—Plans for erection of further 32 three-bedroom type houses on portion of Ipswich-Harwich roads site have been forwarded for approval of M.H.

Consett.—Extensions to be made to Grove R.C. school. Architect, F. Coyle, 11, Saville-row, Newcastle.

Coventry.—Board of Management of King Henry VIII School proposing extensions at £10,000. Plans by H. W. Chattaway, Trinity Churchyard. Contracts not placed.—E.C. approved plans by H. T. Jackson, A.R.I.B.A., for extensions and alterations to Municipal School of Art in Ford-st., also application for loan to cover cost will be made to M.H. in near future.

Cowley.—New public-house to be built, corner of Horspath-rd and Brasenose-ln., by C. H. Saunders, of "Prince of Wales," St. Clement's.

Crediton.—U.D.C. proposes swimming pool, playing field.

Darlington.—T.C. to apply to M.H. for sanction to borrow £30,472 for erection of 100 houses under Housing Act (1930).

Dawlish.—U.D.C. to erect sports pavilion at £1,500.

Denholme.—U.D.C. to purchase land at Old-rd. for erection of 32 houses. M.H. to be asked for loan sanction to meet cost of erection.

Derbyshire.—C.C. to reconstruct New Hall bridge (Castleton), Filliford bridge (Rowsley), Millers Dale bridge, Doe Hill bridge, etc., at £25,080.

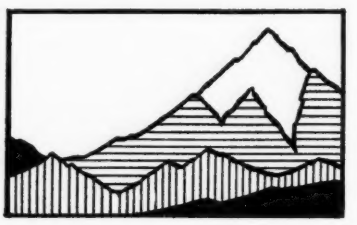
Dorchester.—New hotel to be built by B. A. Westlake, "Antelope Hotel," Dorchester-Bridport-rd., near Martinstown Corner, at £20,000-£25,000.

Droylsden.—Lancashire E.C. acquired site in Manor-rd. for senior school. Plans by Stephen Wilkinson, F.R.I.B.A., County Architect, Preston.

Dudley.—T.C. approved:—W. Lindley, Flood-st., 37 houses, Birmingham new-rd. and Tipton-rd.

Durham.—Subject to approval of B. of E., Durham County E.C. propose school premises at Hamsterley. County Architect, F. Willey, 34, Old Elvet, Durham.—R.D.C. applied to Public Works Loan Board for £16,136 for houses at Sherburn, Ludworth, Pittington and Coxhoe.—M.T. approved scheme submitted by C.C. for reconstruction of Raby Beck bridge at £2,228. Plans by W. J. Merrett, C.S., 43, Old Elvet, Durham.—Plans prepared by Willey, 34, Old Elvet, Durham, for alterations to Seaham girls' secondary school. Tenders invited.

Durham.—Plans prepared by Willey, 34, Old Elvet, Durham, for alterations to Seaham girls' secondary school. Tenders invited.



QUARZITE

NON-SLIP

PAVEMENTS

STUBBS

LONDON LIVERPOOL

East Ham.—C.B. approved: Alterations, 397, Barking-rd., Matthews & Sons, architects.

Eastleigh.—U.D.C. applied for loan of £17,300 for further 62 bungalows for old-age pensioners.

Essex.—Police houses to be erected at Long-rd., Canvey Island (3); Epping (7); Stanford-le-Hope (3), and Springfield (6).—County Architect prepared sketch plans for sanatorium at Broomfield Court.

Eynsham.—H. G. Simonds & Sons, Reading, to erect hotel, "The Evenlode House," Oxford by-pass road junction, at £6,000.

Felling-on-Tyne.—Roman Catholic authorities contemp'ating senior school. Architect, R. Burke, 12, Grey-st., Newcastle.

Gillingham.—Council approved plans for hall, Skinner-st., for trustees, Gospel Hall.

Glamorgan.—C.C. invite tenders for police station at Aberdare and new schools at Sully.

Guildford.—Diocesan Board of Finance made following grants for new churches, etc.:—Church and site at Rusley-ln., Cuddington, £2,414; Stoneleigh, purchase of site, £600; Cove, for completion of new church, £1,703.

Harrow.—U.D.C. to invite tenders for convenience in Harrow Weald recreation ground.—Drainage plans passed: Hardings (London), Ltd., 126 houses, Bellamy-dr. and Uppingham-av., Harrow Weald; C. L. Gorwyn, 92 maisonettes, Lynton estate, Camrose-av., Stanmore.

Hull.—John Smith's Tadcaster Brewery Co., Ltd., to erect hotel, junction of Willerby-rd. and Wymersley-av. Plans by B. Wilson, architect, High-st., Tadcaster. Cost £8,000. Tenders will be invited

Ilfracombe.—U.D.C. to establish amusement centre, including conference hall to seat 1,500, dance hall and sun-bathing facilities.

Ipswich.—T.C. approved £152,275 scheme for reorganisation of elementary education, including senior schools to accommodate 3,500 instead of 700.

Kidderminster.—Rev. E. Arden, of Holy Innocents', propose church at £4,000.

Kingston-on-Thames.—T.C. received plan of proposed rebuilding of block D of Bentalls Store in Wood-st. and Clarence-st.

Lancaster.—Rev. A. J. Jervis, St. Luke's Vicarage, propose church, Torrisholme-ln., at £3,000.—T.C. approved:—57 houses, Bishop Dale-rd., Kingsdale-rd., Garside-st. and Wensleydale-rd., R. L. Dilworth, Ltd., Damside-st.—T.C. propose reconstruction of "Albert Inn" at £2,500. Plans prepared by B.S.

Leeds.—E.C. propose school for juniors at Osmondthorpe housing estate to accommodate 350 boys. Plans by Director of Works and Supplies, Civic Hall.—T.C. approved: Fire sub-station in York-rd. at cost of £26,000.

Leicester.—T.C. passed plans for erection of 2,720 houses on Stocking Farm estate, at Beaumont Leys.

Liverpool.—Plans passed by T.C.:—Two large steel-framed factory buildings, Hillfoot-rd., Goodlass, Wall & Co., Ltd.; mortuary and post-mortem room, Belmont Institute, Belmont-rd., Corporation; garage and service station, Edge-ln., Geo. Gilford, Dunn's; 46 houses, Hildebrand-rd., 46 houses, Hilary-rd., 34 houses, Berwyn-rd., 40 houses, Corwen-rd., 38 houses, Sherwin-rd., Gray & Evans, for Park Estates (Liverpool), Ltd.; 24 houses, Broadgreen-rd., 46 houses, Glenconner-rd., 20 houses, Gleneagles-rd., and 4 houses, Chetwood-rd., Richard Owens & Son, for Mrs. Ebbs; 22 houses, Rocky-ln., 19 houses, Gregory-close, 67 houses, Gregory-way, 16 houses, Lanfranc-rd., 30 houses, Dominic-close, 6 houses, Dominic-rd., 24 houses, Bentham-dr., 92 houses, Francis-way, 38 houses, Basil-close, and 4 houses, Basil-rd., Sydney A. Kelly & Partners, for Unit Construction Co.

London.—L.C.C. recommend £1,925 in respect of docking and general overhaul and repair of training ship Exmouth and replacement of sanitary and lavatory accommodation.

London (Bermondsey).—L.C.C. recommend £347 in respect of additional costs for reconditioning electric bed-lifts at St. Olave's hospital.—L.C.C. recommend £4,500 for Swan Mead housing scheme by B.C., and £826 for Crosby-row housing site.

London (Bloomsbury).—L.C.C. recommend £61,000 in respect of acquisition of leasehold interest in Bloomsbury stores depot.

London (Bow).—L.C.C. recommend additional cubical extent at Fairfield Works, Fairfield-rd., Bow, for Bryant & May, Ltd.

London (Lewisham).—B.C. recommend that underside of bridge carrying Catford-rd. over Mid Kent line of S.R. be painted and repaired at £260.

London (Westminster).—L.C.C. recommend additional cubical extent at 53, 56, New Bond-st., for Prudential Assurance Co., Ltd.

Luton.—Bute Hospital and Luton Public Assistance Institution to be reconstructed at £85,024.

Mablethorpe.—E. J. Baumber, 64, High-st., proposing petrol filling station and garage, junction of Mablethorpe-Alford and Golf-rds.

Macclesfield.—District Bank, Ltd., 15, Spring-gdns., Manchester, proposing additions to bank in Market-st. Plans prepared by Francis Jones & H. A. Dalrymple, F. & A.R.I.B.A., architects, 178, Oxford-rd., Manchester.

Manchester.—Plans approved by T.C.:—"Benchill Hotel," Browneley-rd. and Hollyhedge-rd., Northen Etchells, Threlfall's Brewery, Ltd., Cook-st., Salford; conversion of variety theatre into cinema and variety theatre, Oxford-st. and Great Bridgewater-st., Granada (Manchester), Ltd., 36, Golden-sq., London, W.1.

Marston.—New public-house, corner of Copse-ln. and Marston-rd., to be built by H. L. Blackford, of "The Friar," Friars-st.

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* See also List of Contracts open.

*** **In these lists every care is taken to ensure that information given is accurate and up to date, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced.**

Middlesbrough.—Anglo-American Oil Co., Unity-bldgs., Eastgate, Leeds, to erect offices at filling station near Vulcan-st. Plans by Wm. Harrington, staff architect at Leeds.—T.C. to erect underground convenience. Cater-pk., West-ln., and tenders invited. Plans by S. E. Burgess, B.E.—Further extensions proposed to furniture stores of Eaton & Son, Fry-st. Plans by Kitching & Co., architects, 21, Albert-rd.—T.C. to instal electric lift at West-ln. hospital. S. E. Burgess, B.E.—T.C. to build 50 houses.

Morecambe.—Jackatoon Films, Ltd., proposes film studios at White Lund.

Mountain Ash.—E.C. to erect clinic, manual instruction centre and domestic subjects centre, south of Ynysboeth school, corner Avondale-st.

Nanpantan.—A. H. Guy, "Longcliffe Hotel," to build new "Charnwood Hotel."

Newburn-on-Tyne.—U.D.C. approved plans for 64 semi-detached houses on West Denton estate by Constable & Mackenzie, contractors.—U.D.C. to apply for a loan of £11,785 for 46 houses. J. W. Heatherley, S.—U.D.C. approved £1,250 scheme for maternity and child welfare centre in Mayfield-av., Throckley. Plans by J. H. Wetherley, S.

Newcastle-on-Tyne.—Plans been approved for three warehouses to be built in Brunell-st. Architect, C. S. Errington, 21, Grainger-st. West.—Co-operative Society to build new business premises in Whickham-av. Plans by Architects' Dept., C.W.S., 90, Westmorland-rd., Newcastle.—Plans approved for warehouses on site behind Northumberland-st. Architects, Marshall & Tweedy, Mervyn, House, Pilgrim-st.

Newcastle (Staffs).—T.C. approved plans:—83 garages, off London-rd., Chesterton, T. Hughes, 22, Bagnall-st.

Northumberland.—C.C. included in its annual estimates £26,000 for school at Belford. W. W. Tasker, architect, County Hall, Newcastle.

North Shields.—Northumberland Square Building Trust, Northumberland-sq., to erect another 24 tenement houses in Howdon-rd.

Norwich.—Steward & Patteson to erect licensed premises, Gertrude-rd., at £3,000.

Nottingham.—F. A. Broadhead, F.R.I.B.A., 84, Friar-ln., architect for Sunday school, Arno Vale-rd., Arnold.

Oldham.—E.C. to build £50,000 high school and £12,500 open-air school.

Peppard.—Bucks C.C. to extend sanatorium at £5,380.

Portsmouth.—Portsmouth and Brighton United Breweries to build hotel, Northern-parade.

Potters Bar.—U.D.C. approved: 3 houses and 25 bungalows for Grainger & Apthorpe on estate off Baker-st., and alterations and additions to Clare Hall Sanatorium for Middlesex County Council.

Preston.—C.B. approved:—C. Wilkins (Lancashire County Nursing Association), alterations, 12, Ribblesdale-pl.; F. Howarth (St. Ignatius' Club and Institute), alterations and additions, Pump-st.; A. C. M. Lillie (D. Ainsworth), 47 houses, Oxley, Dimmock and Waverley-rds.; A. C. M. Lillie (Preston Gas Co.), extensions, Platt's-yd.; D. Fazackerley (J. L. Masheter), 105 houses, Riverside estate.

Preston.—British Home Stores, Ltd., Abbey House, Baker-st., W.1, propose premises in Fishergate. Architect, A. L. Farman, A.R.I.B.A., 42, Richmond Park-rd., London, S.W.14.

Ramsbottom.—U.D.C. propose extensions to 'bus garage in Stubbins-ln. Plans by A. Plunkett, S.

Ramsey.—U.D.C. instructed S. to prepare plans for houses at Ramsey, Ramsey St. Mary, Hern-rd., Pond's Bridge, and The Heights.

Reigate.—T.C. approved: 41 houses, Hitchingsway, Hartswood estate, T. B. Atkinson & R. Hitchins.

Seghill.—U.D.C. approved 53 three-roomed and 48 two-roomed houses in flats. Plans by E. Furlong, S., and tenders invited.

Scarborough.—T.C. decided to develop Scalby Mills estate by a bathing pool, boating pool, café, etc., at £55,000.

Sheffield.—Methodist Chapel Committee propose Sunday school, corner of Sicey-av. and Beck-rd.—T.C. approved plans:—Shop and showrooms, Norfolk-st., F. Colley & Sons, Ltd.; shops, Hadfield House-lane and Sicey-av., Chapman & Jenkinson; 21 houses, East-rd. and East Bank-rd., G. R. Parking; 26 houses, Newlands-gr. and Foxwood-rd., Hallewell Estates, Ltd.

Sittingbourne and Milton.—U.D.C. approved: Norman & Clarke, lay-out for 22 dwelling-houses, Eastwood-rd.

Slaugham.—F. Gordon Troup, F.R.I.B.A., has prepared plans for small church at Warninglid.

Slough.—U.D.C. approved: H. H. Harrison, 25 houses in Shaggy Calf-lane.

Southend.—T.C. to ask M.H. for £50,000 for extensions to mental hospital being built at Runwell.

Southport.—Health Committee propose 5 slaughter houses and lavatory accommodation on site of existing public slaughter house, at £1,500. Plans by A. E. Jackson, B.S.

South Shields.—T.C. approved: T. A. Page, Son & Bradbury, for F. L. Robson, hotel, Sea-rd.; G. R. Smith, for E.C., high school for boys at Lisle-rd. and St. Mary's-terr.; J. H. Morton & Son, for Newcastle Breweries, Ltd., hotel, corner of Mowbray-rd. and Coast-rd.

Stalybridge.—Local branch of the St. John Ambulance Brigade and Nursing Association propose headquarters.

Stockport.—Board of Management of infirmary, Wellington-rd. South, propose extensions to buildings at £35,000. Plans by Thomas Worthington & Sons, FF.R.I.B.A., 178, Oxford-rd., Manchester.

Stoke-on-Trent.—T.C. approved:—J. Smith, off High-st., Sandyford, 88 houses; Parkers (Burslem) Brewery, Ltd., Leek-rd., Abbey Hulton, rebuilding of "Sneyd Arms" inn; J. W. S. Harrington, Broad-st., corner Princes-st., Hanley, alterations; Northmere Building Co., Clifton and Rose-st., Hanley, 17 houses; F. Gibson, Occupation-st., Stoke, 34 houses; W. H. Smith & Sons, Lovatt-st., Stoke, reconstruction of premises; Birchenwood Brick and Tile Co., Ltd., The Hawthorns, Stone-rd., Trent Vale, 30 houses; G. F. Norris, Hamilton-rd., Dresden, 28 houses; A. Lilley, Belgrave-rd. and Stone-rd., Longton, 20 houses.

Stone.—Bents Brewery to build licensed premises, main road at the Fillybrooks.

Stretford.—Library Committee of T.C. recommend branch library, flat and public conveniences at the Quadrant entrance to Longford-pk.—Plans passed:—24 houses, Manor-rd. and Bruton-av., E. Jackson & Sons, Ltd.; factory extension, off Park-rd., D. Anderson & Son, Ltd.; flats, 85, Cromwell-rd., Archer & McAlpin.

Stroud.—Swimming baths proposed, adjoining labour club at Far Hill, at £21,000. Architects, L. G. Mouchel & Partners, Ltd., Westminster.

Sunderland.—T.C. approved plans by B.E. for 44 houses, Utterdipe estate. No contracts let. Tenders not yet invited.

Sunderland.—Development and Entertainments Committee proposes scheme for connecting up the lower promenade at Roker, at £56,000.

Tamworth.—Additions to be carried out at senior boys' school at £9,350.

Tipperary.—U.D.C. to erect 124 houses on Brodeen site.

Tyldesley.—U.D.C. propose 150 houses at Astley. F. E. Jones, S.

Urmston.—Board of Management of Urmston Cottage hospital proposes additional wing to institution. Architect not yet appointed.

Uttoxeter.—U.D.C. instructed S. to invite tenders for 81 houses, Slade-ln.

Uxbridge.—U.D.C. approved:—Long-ln., Hillingdon, 23 houses, A. E. Green; Windsor-av., Hillingdon, 68 houses, A. E. Green, Ryefield-av.

Wallsend.—Libraries Committee has included in its estimates £5,000 for extending central library.

Warrington.—Plans approved by T.C.:—61 houses, Hallfields-rd. estate, R. & S. Smith.

Warrington. — Watch Committee recommends police houses, Bewsey and Latchford estate.

Walthamstow.—T.C. approved:—18 flats, Highfield-av., A. Good; electricity sub-station, Wadham Bridge, Walthamstow Borough Council; 20 houses and flats, Priors Croft, Walthamstow Borough Council.—Buffet to be provided at baths at £700 by B.E. and S.—E.C. to renovate William McGuffie school, at £155; Pretoria-av. school, £160; Coppermill-rd. school, £400; Mission-gr. school, £170; Maynard-rd. school, £240; Joseph Barrett school, £175; Wood-st. school, £675, and Chapel End school, £325.—Engineer's estimate of £263 for electrically heated shower baths at William Morris central schools accepted.—Lavatory accommodation to be provided at North Walthamstow sports ground in accordance with Engineer's approximate estimate of £700.—Engineer also submitted sketch plans referring to proposal for demolition of out-offices, rebuilding of offices and boiler room, and re-arrangement of playgrounds at George Gascoigne central schools at £4,230.—Engineer's estimate of £430 for modernising out-offices at Gamuel-rd. boys' school was considered.—Tenders to be invited for installation of steel stacking at central library.

Willesden.—T.C. applying to M.H. to borrow £104,881 for 266 houses and flats on land at Curzon-cres.

Wimbledon.—B.S. reported he had received proposal for erection of block of flats on site of 6, The Downs.—Baths Committee recommend £3,500 on bringing open-air bath at Wandle Park into use.—Council recommended approval to 64 flats proposed at 55, Richmond-rd.—Borough Electrical Engineer to invite and accept tenders for sub-station buildings, or alterations to existing sub-station buildings, with necessary cables and equipment, at £13,700.

York.—Corporation to erect 24 houses at Hope-st. and 28 houses at Fulford Cross.

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NEW PUBLIC WORKS

BRENTWOOD.—An open-air swimming pool, at North-road, is proposed by the U.D.C., to plans by Mr. D. A. Dallas, A.M.Inst.C.E., Engineer and Surveyor to the Council, from whom specifications are obtainable on deposit of £5 5s. Tenders are returnable by March 25.

BRIGHTON.—The Royal Sussex County Hospital at Brighton, which was founded over 100 years ago, is to be enlarged and 100 additional beds provided. An appeal for £60,000 for this purpose and £8,000 a year for maintenance has been launched.

LIVERPOOL.—72 flats are proposed by the Housing Committee on Upper Frederick-street-Duncan-street site. Quantities, on deposit of £2 2s., from Director of Housing, Municipal Annexe, Dale-street. Tenders by March 27.

NORTHAMPTON.—C.B. invite tenders by March 26 for the erection of 10 flats at Kingsland-avenue and Cranford-road, and 43 flats at Scarletwell-street, to plans by Mr. R. A. Winfield, A.M.Inst.C.E., Borough Engineer, Guildhall, from whom specifications are obtainable on deposit £5.

NOTTINGHAM.—A contract for the construction of the grandstand to accommodate nearly 5,000 spectators at the Nottingham and Notts. Historical Pageant, to be staged in Wollaton Park, Nottingham, from June 10-15 next, has been entrusted to Messrs. L. H. Woodhouse and Co., of Nottingham. It will be wholly of timber.

STOKE-ON-TRENT.—The Corporation invite applications, with £2 deposit each contract, from builders wishing to tender for (a) 56 houses at Abbey Hulton site No. 3; (b) 76 houses and, and (c) 66 houses, at their No. 3 site. Applications, by March 19, to Mr. E. B. Shapley, Town Clerk, Town Hall.

SURREY.—As soon as the final approval of the London Passenger Transport Board (Standing Joint Committee) has been received, the first stage of the Southern Railway's new line from Motspur Park to Leatherhead will be put in hand. This portion is about four miles long, and extends from a point half a mile south of Motspur Park Station (where it will leave the Wimbledon and Epsom line) to a point near Garrison-lane, Chessington. It is proposed to build four stations on this first section, the probable sites for which are at Old Malden (Sheephouse-lane), Tolworth (Ewell-road), Chessington (Moor-lane), and Chessington (Garrison-lane). The stations will be of the island platform type.

SUSSEX.—The Minister of Transport has offered a grant from the Road Fund towards the cost of constructing a by-pass west of Crawley on the London-Brighton road (A.23). The offer has been accepted by the West Sussex County Council, and work will begin, it is expected, in the financial year beginning next month. The scheme is estimated to cost over £90,000. It includes the building of a bridge over the Southern Railway at a cost of £12,000 to avoid the level-crossing in Crawley.

TAUNTON.—The Governors of the Taunton and Somerset General Hospital are to consider plans for extensions, including new wards, nurses' and staff accommodation, operating theatre, improvement of heating and lighting systems, etc., to their buildings at East-road. The cost is estimated at about £25,000. The architect is Mr. T. A. Lodge, F.R.I.B.A. (Messrs. Lanchester and Lodge), 19, Bedford-square, W.C.1. No contracts placed yet.

TYNESIDE.—Mr. P. M. Stewart, Commissioner for Special Areas, has informed the Tyne Improvement Commission that he is willing to give them financial assistance towards building a deep-water quay on the south bank of the Tyne between Jarrow and South Shields, to accommodate vessels of the heaviest draft. To the Whitehaven Harbour Commission Mr. Stewart has offered a grant of £15,000 and a loan of £85,000 at 3½ per cent. interest, with a sinking fund, for the carrying out of improvements at an estimated cost of £100,000.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to Mortlake.

	£ s. d.
Best Stocks	4 2 0
Second Hard Stocks	3 10 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
"Phorpres"	*2 8 3	Flettons, B'll'n'se	3 6 3
Flettons at King's Cross	*2 8 3	Best Blue Pressed Staffs	8 5 0
Do., grooved for Plaster	*2 10 3	Do. Bullnose	8 15 0
		Blue Wire Cuts	7 0 0

White Midhurst Facing Bricks (delivered London site) 5 0 0

"Phorpres" whites (King's Cross)	*3 11 3
"Phorpres" Rustic Facings (King's Cross)	*3 6 3

Best Stourbridge Fire Brick:—

2½ in.	7 15 0	3 in.	8 15 0

*Delivered to site in W.C. district, 6s. extra per 1,000.

GLAZED BRICKS—

Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
Headers	20 10 0	One side and two Ends	30 10 0
Quoins, Bullnose and 4½in. Flats	27 10 0	Two sides and one End	31 10 0
		Splays and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" × 9" × 2"	2 3	12" × 9" × 3"	2 9
12" × 9" × 2½"	2 6	12" × 9" × 4"	3 6

Per yard super d/d, Free on site, London.

	s. d.	
Thames Ballast	7 3	per yd.
Pit Ballast	6 3	" "
Pit Sand	7 9	" "
Washed Sand	8 3	" "
¾ in. Shingle	7 3	" "
¾ in. Broken Brick	11 3	" "
Pan Breeze	8 3	" "

delivered 2 miles radius Paddington.

CEMENT.

Best British Portland Cement, Standard Specification, delivered London Area in jute sacks (11 to ton), or paper bags (20 to ton) free (non-returnable):—

	£ s. d.
4 ton loads and upwards site	Per ton. 2 0 0
1 ton to 4 tons site	2 2 0
Alongside Vauxhall in 80-ton lots	1 16 0
"Ferrocrete" Rapid Hardening Cement:—	
4 ton loads and upwards site	2 6 0
1 ton to 4 tons site	2 8 0
Alongside Vauxhall in 80-ton lots	2 2 0

NOTE.—Jute sacks are charged 1s. 6d. each and credited 1s. 6d. nett if returned in good condition within three months, carriage paid.

"Colorcrete" Nos 1 and 2 Coloured Rapid Hardening Portland Cement in 1 cwt. paper bags free (non-returnable) in 1-ton lots and upwards site	2 6 0
"Snowcrete" White Portland Cement in 1 cwt. paper bags free (non-returnable) 1 ton and upwards site	2 15 0
Super Cement (Waterproof) paper bags free	3 10 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0

PLASTER.

Plaster, Coarse, Pink	2 12 0
" " White	2 17 6
" Fine	5 0 0
Sirapite, Coarse	3 5 0
" Finish	3 13 0
Grey Stone Lime	2 2 0
Chalk Lime	2 2 0
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d., if returned in good condition within three months carr. pd.

Stourbridge Fireclay in sacks 37s. 0d. per ton at rly. dep

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station, per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road waggons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries Wirksworth, Derbyshire, Random blocks from 10ft. and over P.ft.cb.	s. d. 14 0
Sawn two sides	12 6
Sawn, three or four sides	27 9
CHILMARK—RANDOM BLOCK— At Nine Elms, per ft. cube	3 11
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	6
6 in. rubbed two sides, ditto "	6 0
2 in. sawn two sides slabs (random sizes), "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in., ditto "	1 3½
HARD YORK— Delivered at any Goods Station, London. Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	1 1½
6 in. rubbed two sides, ditto "	6 1½
4 in. sawn two sides slabs (random sizes), "	3 1½
3 in. ditto ditto "	2 8
2 in. self-faced random flags Per yd. super	7 6

CAST STONE.

Delivered in London area in full van loads, per ft cube: Plain, 8s. 6d.; Moulded 9s. 6d.; Cills, 10s. 0d.

SOFT WOOD.

GOOD BUILDING DEAL.

Inches.		Per stan.	Inches.		Per stan.
4 × 11	.....	£23 10	3 × 6	.....	£18 10
4 × 9	.....	22 10	3 × 11	.....	19 10
4 × 8	.....	21 0	2 × 11	.....	19 10
4 × 7	.....	19 0	3 × 9	.....	19 10
3 × 8	.....	17 10	2½ × 9	.....	19 10
3 × 7	.....	18 0	3 × 4½	.....	17 10
2½ × 7	.....	18 0	3 × 4	.....	17 10

PLANED BOARDS.

1 × 11	.....	£22 10	1 × 9	.....	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	16/-	1¼	25/-
⅝	17/-	1½	31/6
1	19/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1¼	26/-
1½	32/6

MATCHING (BEST).

Inches.	per sq.
⅝	16/-
¾	18/6
1	22/6

ins. BATTENS.	s. d.
¾ × 2 ..per 100 ft.	2 6

SAWN LATHS.

	s. d.
Per bundle	2 3

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt.	4 7 0 to 5 10 0

HUDDERSFIELD Building Society

Ample funds are available to assist in house purchase. Builders with sound schemes of development are invited to consult with the Society.

Branches throughout the Country.

Write for the Folder "Mortgage Facilities" to The Huddersfield Building Society, Britannia House, 203, Strand, London, W.C.2, or from the Head Office, Britannia Buildings, Huddersfield. Andrew Stewart, C.A., Managing Director.

WHEN YOU INVEST—A HOUSE IS BEST!

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12 ..	29 15 0	18 by 10 ..	15 12 6
22 by 12 ..	25 0 0	18 by 9 ..	13 15 0
22 by 11 ..	22 10 0	16 by 10 ..	13 10 0
20 by 12 ..	22 0 0	16 by 8 ..	10 7 6
20 by 10 ..	19 7 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons.

	Per 1,000 f.o.r. London.
Best machine-made tiles from Broseley or Staffordshire district	£4 7 0
ditto hand-made ditto	5 0 0
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	
R.S. Joists, cut and fitted	£11 10 0
Plain Compound Girders	13 10 0
" Stanchions	15 0 0
In Roof Work	18 10 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅜ in. to ½ in.	10 15 0
⅝ in.	11 0 0	⅝ in. to 2⅞ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅛in. to 6in.	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅛in. to 6in.	Standard Fittings Sizes ⅛in. to 6in.	Standard Flanges Sizes ⅛in. to 6in.
	%	%	%	%
Gas	65	52½	57½	70
Water	61½	48½	52½	65
Steam	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Price ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/5½	1/1½	4½d.
3½in.	1/6½	1/3	5½d.
4 in.	1/8½	1/4½	6½d.
4½in.	1/8	1/6½	9½d.
5 in.	1/10½	1/8½	10d.

O.G. GUTTERS.

3 in.	1/7½	1/5½	7d.
3½in.	1/9½	1/5½	7½d.
4 in.	1/11	1/6½	8½d.
4½in.	2/0	1/9½	9½d.
5 in.	2/4½	2/0½	11½d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, angles, stock Branches, angles.	stock angles.
2 in.	2/2½	1/4½	2/0
2½in.	2/3½	1/6½	2/4½
3 in.	2/9½	1/11	2/10½
3½in.	3/3½	2/3½	3/3½
4 in.	3/9	2/9	4/0½

Less 20 per cent. trade discount.

Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Stock.

	Pipe,	Bends, stock Branches, angles, stock angles	
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	2 8	1 11	2 3
2½in. " ..	3 0	2 1	2 10
3 in. " ..	3 4	2 3	3 5
3½in. " ..	3 7½	2 10	3 11
4 in. " ..	4 0	3 2	4 6

L.C.C. COATED DRAIN PIPES—London Prices ex Stock.

	Bends, stock Branches. Pipe,	angles, stock angles.	
	s. d.	s. d.	s. d.
4 in. per yd. in 9 ft. lengths	3 0	4 3	7 0
	cwt. qr. lbs.		
4 in. "	1 1 20 ..	4 9	5 6 8 0
5 in. "	1 2 22 ..	5 10	9 6 13 3
6 in. "	2 0 6 ..	6 10	12 0 18 0

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	10 0 0	to	10 10 0
Staffordshire Crown Bars— Good merchant quality	10 10 0	to	11 0 0
Staffordshire Marked Bars	14 0 0	..	15 0 0
Mild Steel Bars	9 0 0	..	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 10 0	..	9 0 0
Hoop iron, basis price	11 0 0	..	12 0 0
" Galvanised	27 10 0	..	28 10 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*contd.*).

IRON—	Per ton in London. £ s. d.	£ s. d.
Soft Steel Sheets, Black—		
Ordinary sizes, to 20 g.	11 0 0 ..	11 10 0
,, ,, ,, 24 g.	12 0 0 ..	13 0 0
,, ,, ,, 26 g.	14 0 0 ..	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ..	14 0 0 ..	15 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	15 0 0 ..	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.....	17 10 0 ..	18 10 0
No. 1 quality £4 per ton extra.		
Flat and Galvanised Corrugated Sheets—		
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 10 0 ..	15 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g...	15 10 0 ..	16 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0 ..	18 0 0
Sheets, Galvanised, Flat, Best quality—		
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	14 10 0 ..	16 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	15 0 0 ..	17 0 0
Best Soft Steel Sheets, 26 g.	16 10 0 ..	18 0 0
Cut Nails, 3 in. to 6 in.	15 10 0 ..	17 0 0
(Under 3 in. usual trade extras.)		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	0 9
Strong sheet	,,	0 10
Thin	,,	0 11
Copper nails	,,	1 0
Copper wire	,,	0 11

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/-	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH GLASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- per doz.

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumbers' 1/-, Tinmen's, 1/2, Blowpipe, 1/3 per lb.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD.—Sheet, English, 4 lb. and up.....	17 10 0
Pipe in coils	17 0 0
Soil pipe.....	24 15 0
Compo pipe	26 0 0

NOTE.—Country delivery, 20/- per ton extra lots under 3 cwt. 4/- per cwt. extra, and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- cwt. extra.

Old lead, ex London area, at Mills..... per ton £9 5 0

PAINTS, &c.

		£ s. d
Raw Linseed Oil, in pipes .....per gallon		0 2 5
,, ,, ,, in barrels .... ,,		0 2 7
,, ,, ,, in drums .... ,,		0 2 9
Boiled ,, ,, in barrels .... ,,		0 2 10
,, ,, ,, in drums .... ,,		0 3 0
Turpentine, in barrels ..... ,,		0 4 5
,, in drums (10 galls.).. ,,		0 4 7
Genuine Ground English White Lead, per ton		43 0 5
(In not less than 5-cwt. casks.)		
Extra for 1-cwt. kegs over 5-cwt. casks is 5/9 cwt.		

GENUINE WHITE LEAD PAINT.

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots	£ s. d.
per ton delivered	61 0 0
Red Lead, Dry (packages extra) ....per ton	31 0 0
Best Linseed Oil Putty ..... per cwt.	0 13 6
Size. XD quality ..... fkn.	0 3 0

VARNISHES, &c.

		Per gallon
Oak Varnish .....Outside		0 14 0
Fine Do.	Do.	0 16 0
Fine Copal	Do.	0 18 0
Pale Copal	Do.	1 0 0
Pale Opal Carriage	Do.	1 4 0
Best Do.	Do.	1 12 0
Floor Varnish .....Inside		0 18 0
Fine Pale Paper	Do.	0 18 0
Fine Copal Cabinet	Do.	1 2 0
Fine Copal Flatting	Do.	1 0 0
Hard Drying Oak.....	Do.	0 18 0
Fine Hard Drying Oak	Do.	0 19 6
Fine Copal Varnish	Do.	1 0 6
Pale Do.	Do.	1 12 0
Best Do.	Do.	1 2 6
Best Japan Gold Size		0 12 6
Best Black Japan.....		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent).....		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	per ft.		per ft.
15 oz. fourths ..	2⅜d.	32 oz. fourths	6½d.
15 ,, thirds	2⅜d.	32 ,, thirds	8½d.
21 ,, fourths ..	3½d.	Obscured Sheet, 15 oz.	3d.
21 ,, thirds	3⅜d.	,, ,, 21 ,,	4½d.
26 ,, fourths ..	4½d.	Fluted, 15 oz. 6½d.,21 oz. 9d.	
26 ,, thirds	5⅜d.	Em'lld, 15 oz. 4½d.,21 oz. 5½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate ⅛ in.	4⅜d.
Rough rolled $\frac{3}{16}$ in.	5⅜d.
Rough rolled ¼ in.	5⅜d.
Figured, Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White....	5½d.
Do. tinted	8d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted Do.	7½d.
Cast plate is same price as rough rolled.	

"VITA" GLASS.	Per ft. s. d
Clearsheet—not exceeding 1 foot	1 0
Do. do. 2 feet	1 3
Do. over 2 feet	1 9
Polished plate—not exceeding 1 foot	1 6
Do. do. 2 feet	3 0
Cathedral—not exceeding 1 foot	1 0
Do. larger sizes	1 6
Horticultural Sheet and Cathedral "Vita" Glass. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1 0
3/16 in. Wired Georgian Design. Sizes up to 96 inches long by up to 24 inches wide.....	2 9

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for the Building Industry. Painters by ruling of the Scottish National Painters' and Decorators' Joint Council, have from January 1 new rates. Grade A towns, 1/6 per hour; Grade B, 1/4; Aberdeen has a special rate of 1/5½. The new rate for Plasterers has been fixed at 1s. 6½d. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification....	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3	1/2½
Labourers	1/1½	1/1¼	1/0¾	1/0½	1/0	/11¾	/11¼	/11

Aberdeen .....A	Dundee .....A	Hawick .....A²	Perth .....A
Airdrie.....A	Dunfermline ...A	Helensburgh ...A	Perthshire .....A²
Alexandria .....A	Dunoon .....A	Inverness .....B	Peterhead .....A²
Arbroath.....A	East Lothian...A	Kilmarnock...A	Renfrewshire .....A
Ayrshire .....A	Edinburgh .....A	KincardineshireA²	Rothesay .....A
Bathgate.....A	Falkirk .....A	Kinross-shire ...A	Roxburghshire ...A²
Bo'ness .....A	Forfarshire ...A²	Kirkcaldy .....A	St. Andrews .....A
Broughty Ferry ...A	Fort William B	Lanarkshire ...A	Selkirkshire .....A
Clackmannanshire...A	Galashiels .....A²	Leith .....A	Stirling .....A
Coatbridge .....A	Glasgow .....A	Midlothian .....A	Stirlingshire, WestA
Dumbartonshire ...A	Greenock.....A	Motherwell ...A	West Lothian ...A
Dumfries.....A²	Hamilton .....A	Peeblesshire ...A²	Wishaw .....A
Dumfriesshire.....A²			

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 519.

THE SCOTTISH BUILDER

NEW BUILDINGS

ABERDEEN. — BATHS. — The Links and Parks Committee of the T.C. decided to recommend that the new city baths be erected on a site in Justice Mill-lane. The estimated cost of the site and of the baths is about £70,000.

BO'NESS. — HOUSES. — The T.C. has decided to erect 30 houses at the Corbiehall No. 3 site. The plans are being prepared by Mr. Matthew Steele, architect, Union-street.

BURNMOUTH.—HOUSING.—The Berwickshire C.C. have decided to undertake a building scheme at Burnmouth, and they have instructed Messrs. Rowand Anderson and Paul and Partners, architects, 16, Rutland-square, Edinburgh, to submit sketch plans for a number of houses.

COATBRIDGE.—CENTRE.—Subject to the approval of the Ministry of Labour, the Lanarkshire E.C. have decided to recommend the purchase of the site at the Old Crown Ironworks, Main-street, for the purpose of erecting an unemployment centre.

DUMBARTONSHIRE. — FIRE STATION.—The T.C. have under consideration a scheme for the erection of two fully equipped fire stations in the neighbourhood of Alexandria and Bearsden.

DUNDEE.—BUILDING.—Five blocks of tenement buildings are to be erected in Clepington-road near the top of Arklay-street. There will be 40 two-roomed houses, complete with kitchenette and bathroom. The contractors are Messrs. Gibson and Dargie, 2, Cardean-street, and the plans have been prepared by Mr. Joseph Johnston, architect, 32, Bank-street.

EDINBURGH.—BUILDING.—The Dean of Guild Court has passed the following plans: Astley Ainslie Institution, additions to the institution in Grange Loan; Corporation, additions to testing and stamping office at Drum Park Yard, Albion-road; and Mactaggart and Mickel, seven shops and four houses at the corner of Boswall-parkway and Crewe-road.

GALLOWAY. — HOUSING. — Mr. W. S. Drummond, builder and joiner, Twynholm, has secured the contract for the housing of the staff who are working on the new Galloway power scheme. The estimated cost is £7,000.

GLASGOW.—EXTENSION.—The Corporation have a scheme on hand for the reconstruction and extension to the Oatlands public school. Mr. W. McCaig, architect, 129, Bath-street.

GLASGOW.—BRIDGE.—The Clyde Navigation Trust have submitted to the Corporation their plans for the removal of the Finnieston Ferry, in preparation for the construction of the new high-level bridge to span the river at the site. The estimated cost of the removal scheme is £42,000.

GLASGOW. — HOUSING.—Cottage homes for elderly couples are to be built along with a large number of houses at Househillwood, a new housing site adjoining Pollok Estate, which has been bought by the Glasgow Housing Committee. The plans submitted by the Director of Housing to the Committee on Sites and Building embrace the erection of 879 houses—544 of four apartments, 311 of three apartments, and 24 cottage homes for elderly couples, which is a new development in housing in Glasgow. The committee also agreed on a lay-out plan embracing 44 houses at Cardonal and 42 houses at Pollokshaws, and on the acquisition of land for 102 houses at Cowlairs and 558 at Provanmill.

GLASGOW. — IMPROVEMENTS.—The Corporation have recommended that a scheme of improvements be carried out in the housing and bathroom accommodation at Springburn and Queen's Park fire stations, at £4,500.

GLASGOW.—HOSTEL.—The E.C. have decided to erect a hostel and nursery for children in Baltic-street.

(*Continued on page* 527.)

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	8	0
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	3
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundations 1 to 6	per yard cube	24	0
Add if in underpinning in short lengths	,, ,,	5	0
Add if in floors 6 in. thick	,, ,,	2	0
Add if in beams	,, ,,	2	6
Add if aggregate 1 : 2 : 4	,, ,,	8	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	1	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	26	0	0
Add if in stocks	,,	6	0	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	5	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—

		s.	d.
Fair external in half brick rings	,, ,,	0	0	10
Axed in stocks	,, ,,	0	0	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	5	9

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	0	11
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	0

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	9
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	15	6
Chilmark stone fixed complete	,, ,,	16	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap. including nails	per square	70	0
Do. 20 in. × 10 in. Do. Do.	,,	71	6
Do. 24 in. × 12 in. Do. Do.	,,	73	6

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	3	6
Do. joists	,, ,,	4	0
Do. roofs, floors and partitions	,, ,,	4	6
Do. trusses	,, ,,	6	9

	¾″	1″	1¼″	2″
Deal rough close boarding per sq.	30/–	35/–	43/–	70/–

		s.	d.
Flat centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	0	8
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

	¾″	1″	1¼″	1½″
Deal-edges shot per sq.	—	38/–	45/–	52/–
Do. tongued and grooved ,,	—	43/–	50/–	58/–
Do. matchings ,,	40/–	45/–	—	—
Moulded skirtings, including backings and grounds per ft. sup.	1/4	1/7	1/9	2/3

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	9
Two Do. Do. Do.	,, ,,	2	0
Add for fitting and fixing	,, ,,	0	2
Deal cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights, average size		3	3

DOORS.

	1½″	1¾″	2″
Two-panel square framed per ft. sup.	2/1	2/3	2/5
Four-panel Do. ,,	2/4	2/6	2/9
Two-panel moulded both sides ,,	2/6	2/9	2/11
Four-panel Do. Do. ,,	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	12	0

	1″	1¼″	1½″
Plain deal jamb linings framed per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers ,,	1/2	1/4	1/7
Add if cross-tongued ,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/0	2/3	2/8	—	—
Deal strings wrot on both sides and framed	1/8	2/–	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1½ in.	per ft. run	0	9
Mahogany handrail, average 3 in. x 3 in.	,, ,,	5	6
Add if ramped	,, ,,	11	0
Add if wreathed	,, ,,	22	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	0
Plain compound girders	,,	18	0
Do. stanchions	,,	20	9
In roofwork	,,	26	6

RAIN-WATER GOODS.

	3″	4″	5″	6″
Half-round plain rebated joints ft. run	1/–	1/1	1/3	1/6
Ogee Do. Do. ,,	1/2	1/3	1/9	2/3
Rain-water pipes with ears ,,	1/3	1/10	—	—
Extra for shoes and bends each	2/9	3/11	—	—
Do. stopped ends ,,	1/1	1/4	1/9	2/6
Do. nozzles for inlets ,,	2/2	2/7	3/7	4/–

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	32	0
Do. do. flats	,,	31	0
Extra labour and solder in coated cesspools	each	6	0
Welt joint	per ft. run	0	4
Soldered seam	,, ,,	1	2
Copper nailing	,, ,,	0	3

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	10½	1/2	1/5	2/1	2/5	—
Do. service ,,	1/1	1/6	1/9	2/8	—	—
Do. soil ,,	—	—	—	—	—	5/-
Bends in lead pipe each	—	—	—	—	2/–	5/6
Soldered stop ends ,,	0/7	0/11	1/3	2/–	2/6	—
Red lead joints ,,	0/9	0/10	1/1	1/7	1/10	3/6
Wiped soldered joints ,,	2/–	2/6	2/9	3/5	4/3	6/–
Lead traps and cleaning screws ,,	—	—	—	10/–	13/–	—
Bib cocks and joints ,,	6/–	9/–	13/–	—	—	—
Stop cocks and joints ,,	10/6	12/6	17/6	50/–	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	0
Do. Do. Sirapite	,, ,,	2	3
Do. Do. Keen's	,, ,,	3	0
Add saw lathing	,, ,,	1	4
Add metal lathing	,, ,,	2	4
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	,, ,,	1	7
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	4	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	6½
26-oz. Do.	,, ,,	0	7½
Obscured sheet	,, ,,	0	8
⅛-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10
¼-in. wired cast plate	,, ,,	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	7½
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece 2/– to	4/–	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW BUILDINGS IN SCOTLAND

(*Continued from page* 525.)

HAWICK.—HOUSING.—A report on housing sites submitted by the Public Health Committee to the T.C. recommended that steps be taken to purchase the smaller portion of the Greenheads site, lying immediately to the south of the Cottage Hospital boundary and extending to 2¾ acres, and that Buccleuch Estates, Ltd., be requested to grant the Council an option to purchase the remainder of this site, extending to about six acres, at a future date.

INVERNESS. — WAREHOUSE. — Is to be erected in Church-street, for the Craighouse Cabinet Works, Ltd., Craighouse-gardens, Edinburgh. Messrs. Thomson and Co., architects, Edinburgh.

INVERNESS-SHIRE. — IMPROVEMENTS.—A motion has been tabled by Sir Alexander MacEwen for the next meeting of the C.C. asking that legislation should be immediately passed to improve piers and roads in the Outer Islands, and urging that the Government should appoint a Special Commissioner or Special Committee to prepare a plan designed to effect a permanent improvement.

IRVINE.—HOUSES.—The T.C. has decided to erect 100 houses.

KELSO.—HOUSING.—The T.C. have agreed to defer proposals to make an area in Roxburgh-street a clearance area. Instead they have agreed to consider another housing site, and later to consider the clearance area.

KIRKWALL.—STORE.—The Dean of Guild Court has approved of plans submitted by the Orkney Harbour Commissioners for a new store on the main pier for the Orkney Steam Navigation Co., Ltd.

KINCARDINE. — BUILDING. — The Land Work Committee of the C.C. has approved an expenditure of between £33,000 and £34,000 on new bridges and buildings, etc. The improvements include: Four new police stations, at an estimated cost of £1,100 each; new cubicle and isolation block at hospital, £3,250; new bridge at Tilbouries, £5,500; new bridge at Whitestone, £1,200; widening of bridge at Mill of Uras, £2,000; new bridge over Feugh at Banchory, £10,000; improvement of bridge of Lappie, Fordoun Station, £1,500; and improvement of bridge at north approach to Laurencekirk, £1,500.

LANARKSHIRE.—HOUSES.—The C.C. has approved an application by the Finance Committee to undertake the erection of 1,320 houses, at a cost of £594,000. The houses will be built on various sites.

LANARKSHIRE. — HOUSING.—The C.C. has decided that 28 additional houses allocated to Carnbroe area are to be erected in Bellshill.—The C.C. are also planning to erect 88 more houses at Dean-street, Bellshill, making 124 houses for the one site. The Council are looking for a site for new houses which might be allocated to the New Stevenston area for the relief of overcrowding.

LEITH.—EXTENSIONS.—The Committee of Leith Dock Commissioners decided to recommend that the Commissioners proceed with a scheme of extension between the West Pier and Newhaven.

NETHERDALE. — CENTRE.—The Selkirkshire C.C. have plans in hand for new junior instruction centre.

PAISLEY.—EXTENSIONS.—The Glen Coats Auxiliary Hospital at Ferguslie Park is to be extended in order to provide accommodation for a total of 50 patients.

RENTON.—HOUSING.—The Public Health Committee of Dumbarton C.C. have decided to build 120 new houses in the Renton district. The houses, which will be of two and three rooms and kitchen, are to be erected on Cordale ground. They have also agreed to erect four blocks of 32 houses on Burnbrae at the south end of Alexandria.

SANQUHAR.—HOUSING.—The T.C. have decided to purchase a site west of Castle-street for a municipal housing estate.

STORNOWAY.—EXTENSIONS.—The Rossshire C.C. have a scheme on hand for a £40,000 undertaking at the Nicholson Academy. Messrs. D. McPherson and Sons, County Architects, Tulloch-street, Dingwall.

TRADE NEWS

"Dorset House," Marylebone.

The asphalt for this block of flats, now being erected to plans by Messrs. T. P. Bennett & Son, in conjunction with Mr. Joseph Emberton, is being supplied by Ragusa Asphalt Paving Co., Ltd.

A Social Function.

The "Aygee" Social and Sports Club held a most enjoyable dance on March 7, at the Express Rooms, Charing Cross. About 200 people were present, and Mr. Leaf performed the duties of M.C. admirably. The assembly was addressed by Mr. J. A. Oliver, the chairman of the club, and Mr. A. Gold responded on behalf of the directors of Messrs. A. Goldstein and Co., Ltd., the "Aygee" Club being the social section of this glazing firm. We are given to understand that the committee are endeavouring to arrange for a Jubilee celebration dance on Saturday, May 4.

League of Nations Building: A Contract.

We are informed that Vulcanite, Ltd., of Pelican Works, Peckham, S.E.15, have just completed, and are in course of shipping, an order for 20 tons (25,000 yards) of "Vulcanite" carpet "Feltine," to be laid on the floors of the Palace of the League. In competition with English and Continental manufacturers, Vulcanite, Ltd., have secured the order from two of the biggest furnishing concerns in Switzerland, because their material was adjudged by far "the best quality and superior to any that could be procured from any other quarter."

Grandstands for the Jubilee Celebrations.

One of the largest stretches of grandstands ever erected is being built along the Mall, Constitution Hill and Green Park (Piccadilly frontage) for the Royal Jubilee processions on May 6. There will be a seating capacity of about 28,000, most of which is to be made available to members of the Forces. A section will be set aside for the benefit of the hospitals. In this section there will be about 6,000 seats, which can be bought by the King Edward Hospital Fund. It is expected that the work of constructing the stands will take about five weeks. One and a half million feet of plain ended tubing, a quarter of a million couplers, and one hundred miles of timber will go to the making of the stands. The Steel Scaffolding Co., Ltd., who are supplying the "Bettaskaf" scaffolding, have temporary offices in the slips behind Marlborough House.

A New Dampcourse.

The Ruberoid Company, Ltd., has introduced a new type of dampcourse. This is being marketed under the name of "Astos" 100 per cent. mineral dampcourse and is available to builders in all wall widths and in two weights and thicknesses, viz.: Standard "Astos," ⅛ in. thick, with an average weight of 7 lb. per yard super, and Lead-lined "Astos," with a thickness of ⅛ in. and an average weight of 9¼ lb. per yard super. It is claimed for this mineral dampcourse that it enjoys the advantages of flexibility and reasonably low cost. In its manufacture the use of any perishable fibre or such other material as is generally regarded as being short-lived has been eliminated, and by replacing such material with a fabric of indestructible nature achieves the claim of 100 per cent. perfection in use. Its base is pure asbestos fibre, felted to give a sheet of asbestos of uniform thickness, and of sufficient strength to carry an adequate waterproofing of asphaltum or bitumen and asbestos fibre. "Astos," therefore, is not a sheet coated with bitumen, but a scientifically homogeneous composition of asphalt and asbestos, of uniform composition throughout. The advantage of this method of construction enables the new dampcourse to withstand pressure and fluctuating temperatures, and also reduces to a minimum the possibility of squeezing out.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Government Departments*.

Alnwick.—80 houses, with roads and sewers, on the St. Thomas Close Field, for the U.D.C. Mr. G. Beatty, surveyor:—

*Liddell & Son, Forest Hall, Newcastle.

Angus.—Housing scheme at Strathmartine, for the T.C. Mr. J. MacGregor, County Architect, Forfar:—

Excavation, brick and mason—
*C. Dick & Son, Monifieth 1,225
Plumber and sanitary—
*Swan & Co., Dundee 323
Joinery, carpentry and ironmongery—
*C. Johnstone & Co., Angus 645
Slater—
*A. Clark, Dundee 248
Plaster—
*W. Robertson, Brechin 132

Bakewell.—16 three-bedroom non-parlour type houses in the parish of Eyam, for the R.D.C. Mr. V. G. Sayner, L.R.I.B.A., architect, 4, Grove-parade, Buxton:—

‡J. H. Cartledge, Baslow, Bakewell... £4,810

Belfast.—Widening of Forth River Bridge, for the T.C.:—

*Harding & Harding £1,790

Birmingham.—Assembly hall at Fort Dunlop, for the Dunlop Rubber Co., Ltd.:—

Contractors—
*T. W. Edwards & Sons.
Floors—
*Trussed Concrete Steel Co., Ltd., London.

Bradford.—156 tenements in Whetley-lane, for the T.C. Mr. J. A. Fletcher, F.R.I.B.A., City Architect:—

R. G. Tarran, Ltd., Hull	£65,037	3	0
A. Robinson, Bradford	60,400	0	0
H. E. Pitt, Ltd., Sunderland ...	60,191	0	0
Sir L. Parkinson & Co., Ltd., Blackpool	60,000	0	0
W. J. Simms, Sons & Cooke, Ltd., Nottingham	59,400	0	0
F. P. Leach & Sons, Ltd., Bradford	58,630	0	0
J. Briggs & Son, Queensbury...	58,388	0	0
F. Robinson & Sons, Bradford	55,995	0	0
T. Obank & Sons, Ltd., Bradford	55,980	0	0
P. Rhodes, Ltd., Leeds	55.555	0	0
T. Feather, Bradford	55,515	4	6
C. Booth & Son, Bradford ...	55,450	0	0
Eph. Balmforth & Sons, Ltd., Queensbury	53.874	10	0
L. & W. Morrell, Bradford ...	53,823	2	11
*H. Boot & Sons, Ltd., Sheffield	53,796	0	0

Brighouse.—Public conveniences at Thornhill Bridge-lane, for the T.C. Mr. S. S. Heywood, Borough Surveyor:—

Masons—
*Lister Brook & Co., Ltd. £320 0 0
Plumbers—
*McNulty & Walker 138 14 11
(All of Brighouse.)

Broadstairs.—Bathing chalets, for the U.D.C.:—

*Christiani & Neilson £3,874 10

Burnside.—34 houses:—

*J. MacDonald (Contractors), Ltd., Shaw cross-road, Glasgow.

Calderbank.—Builders' work on 40 houses, for the Lanarkshire C.C. Mr. Peter C. Smith, Lanarkshire County Housing Architect, Hamilton:—

*R. Paterson & Son, Ltd., Airdrie £4,786 11 6

Cambridge.—34 houses on Brooks-road housing site, for the T.C.:—

*J. Brignell, 42, Newmarket-road, Cambridge £9,758

Cambuslang.—Demolition and erection of bowling clubhouse and offices. Mr. James Beveridge, architect, West George-street, Glasgow:—

*W. Fyfe, Kirkshall Goods Station, Cambuslang.

Cannock.—Clock tower in the Market-place, for the U.D.C.:—

*Fraley & Sons, Ltd., Birmingham ... £493 15

Cardiff.—Erection of a two-story building in Frederick-street, for Messrs. S. C. Larkin & Sons, Ltd., Livery-street and Barwick-street, Birmingham, 3. Messrs. Ewen Harper Bros. & Co., architects, Ruskin-chambers, 191, Corporation-street, Birmingham, 4:—

*E. Turner & Sons, Ltd., Cardiff.

Cheadle.—Detached residence for Miss Rubin, Daylesford Estate. Mr. J. L. Edwards, incorporated architect and surveyor, 1, Ridgefield, King-street, Manchester, 2 :—

Jones & Rawlinson, Ltd., Salford £1,940
E. Coleman, Ltd., Sale 1,900
*J. F. Moore, Ltd., Eccles 1,890

(Architect estimated £2,000.)

Chippenham.—Alterations to Rowden Hill House, for the C.C. :—

*F. W. Hulbert & Co. £390

Co. Cork.—Erection of Midleton College Hospital. Mr. B. O'Flynn, M.R.I.A.I., architect :—

Contractors—
*O'Shea's, Ltd.

Floors—
*Trussed Concrete Steel Co., Ltd., London.

Coventry.—Open-air swimming pool at Gosford-park extension. Mr. E. J. Oldham, L.R.I.B.A., architect :—

Contractors—
*W. H. Jones & Sons, Ltd.

Reinforced concrete engineers—
*Trussed Concrete Steel Co., Ltd., London.

Coventry.—100 houses on a site at Canley and 10 houses on the sites at Harnall-lane East and The Chantries, for the Corporation. Mr. E. H. Ford, City Engineer and Surveyor :—

*Johnson & Newton, Ltd., Coventry.

Darlington.—100 houses, for the T.C. :—

62 houses in Geneva-road East—*W. F. Hartley, Banktop Sawmills, Darlington.

20 houses in Shelley-road and 18 houses in Thompson-street West—*Manon & Sockett.

Dudley.—Alterations to the "Ward Arms" Hotel, Birmingham-road, including swimming pool and sun-bathing terraces, for Messrs. Julia Hanson & Sons, Ltd., The Brewery, Tower-street. Mr. A. T. Butler, A.R.I.B.A., architect, Priory-street :—

*J. Dallow & Sons, Birmingham.

Dunfermline.—92 houses at Bellyeomen, for the T.C. Mr. D. H. Shaw, Burgh Engineer :—

Brickwork—*J. Stewart & Sons.
Joiner work—*Boyd & Wilson, Cardross.
Plumber work—*J. Inglis & Son.
Plaster work—*A. Galloway.
Slater work—*P. Kelly & Sons.
Glazier work—*City Glass Co., Edinburgh.
Painter work—*Robertson & Son, Leith.
Electrical work—*J. B. Beveridge.
Timber fencing—*J. Reid & Sons, Crossgates.
Privet hedges—*Wm. Meldrum.
Grates—*Coull & Matthew.

(Remainder of Dunfermline.)

Dymchurch.—Club house. Mr. E. A. Jackson, F.R.I.B.A., architect, Ashford :—

*Coast and Country Homes, Ltd.

Reinforced concrete work—
*Trussed Concrete Steel Co., Ltd., London.

Enniscorthy.—82 houses in block concrete, for the U.D.C. :—

*Messrs. Williamson, Enniscorthy £24,333

Glasgow.—Reconstruction, additions and lift installation for new offices in St. Vincent-street, for the Eagle Star and British Dominions Insurance Co. Mr. Eric Sutherland, architect, 102, Bath-street :—

Excavation, brick and mason—*P. & W. Anderson, Ltd.
Joinery, carpentry and ironmongery — *J. Cochran, Ltd.
Plumber—*D. & R. Fulton.

(All of Glasgow.)

Glossop.—16 houses, for the T.C. Mr. G. Faulds, Borough Surveyor :—

*C. H. Pike & Son, Hyde.

Gourock.—Extension of bathing pavilion and swimming pond, for the T.C. Messrs. F. A. MacDonald & Partners, architects, 135, Wellington-street, Glasgow :—

*W. Taylor & Son (Glasgow), Ltd., Boden-street, Glasgow.

Grays Thurrock.—Combined treatment centre and pay station, for the Essex C.C. :—

*Hosking & Sons, Rayleigh £8,723

Hadleigh.—Office accommodation and accommodation for a caretaker at the combined treatment centre, for the Essex C.C. :—

‡Falkus Bros., Ltd.

Hadleigh.—Central heating and hot-water installation at the combined treatment centre, for the Essex C.C. :—

*Watkin Heating Co., Ltd. £160 10

Hinckley.—Extensions to factory at Burbage, for the Iway Hosiery Co., Ltd. Mr. E. H. Crump, architect, Barclay's Bank-chambers :—

*R. H. Simmonds, Hinckley.

Howth.—Library, for the County Dublin Libraries Committee :—

‡Wheelan & Nagle, Ltd. £1,446

Hoylake.—Work at the "Punchbowl" public-house. Mr. Gilbert Fraser, M.C., F.R.I.B.A., architect :—

Contractors—
*Wm. Fleming & Son, Neston.

Reinforced concrete engineers for basement—
*Trussed Concrete Steel Co., Ltd., London.

Hull.—Junior and senior departments at Endike-lane West school, for the T.C. :—

*Robinson & Sawdon, Ltd. £27,900

Hull.—New laundry building at Tilworth Grange Institution, for the T.C. City Architect :—

*Markwell Holmes & Hayter, Ltd., Hull £2,300

Hull.—Building for Clough Junction sub-station, for the T.C. :—

*R. Cleminshaw £249 12

Hull.—Underground coal pit, for the T.C. :—

*T. P. Tarran, Ltd. £2,614 13 1

Hull.—Building for Newington sub-station, for the T.C. :—

*T. P. Tarran, Ltd. £323

Johnstone.—Housing scheme, Sharps-crescent, for the T.C. Mr. W. Mitchell, architect, Burgh Surveyor's Office. Messrs. Jaffrey & Lochhead, measurers, High-street :—

Excavation, brick, joinery, carpentry and ironmongery—*J. Y. Keenie, Ltd., Johnstone.
Plumber work and sanitary fittings—*R. Love, & Son, Johnstone.
Glazier—*R. McFarlane, Johnstone.
Slater—*A. Hutton & Sons, Johnstone.
Plaster—*G. Thomson & Son, Johnstone.
Painter—*T. Hastie & Son, Glasgow.
Electrical engineering and fittings — *J. Sweenie, Johnstone.

Kilkee.—10 houses, for the Clare Board of Health :—

*Partick Marrinan, Kilkee.

Kingston-on-Thames.—Alterations at 55, Douglas-road, for the T.C. :—

*J. Barrett & Son £144 15

Laoighis.—Cottage at Kilnaseer, for the Board of Health :—

*M. Fitzpatrick, Rathdowney £252 10

Leamington.—Reconstruction of the Theatre Royal. Messrs. Franklin Newman & Sons, architects :—

*W. H. Jones & Sons, Ltd., Coventry.

Floors—
*Trussed Concrete Steel Co., Ltd., London.

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Law.—New housing scheme, for the Lanarkshire C.C. Mr. Peter C. Smith, County Housing Architect, Hamilton :—

Excavation, brick and mason—*W. Chambers & Son, Ltd., Flemington.
Joinery, carpentry and ironmongery — *J. Anderson, Hamilton.
Slater—*McCartney & Reid, Ltd., Wishaw.
Plumber work and sanitary fittings — *G. Martin, Motherwell.
Plaster—*McCartney & Reid, Wishaw.
Electrical installation—*Gordon Ward, Glasgow.

Leeds.—Additions at the works and offices in Sheepscar-street, South, for Messrs. Hirst, Brooke & Hirst, Ltd. Mr. G. W. Atkinson, architect, St. John's House, Merrion-street :—

Main contract—*J. H. Wood & Co.
Roof coverings—*D. Anderson & Sons, Ltd.

Leeds.—Rebuilding of the "Rose and Crown" Hotel in Branch-road, Armley, for the Leeds and Wakefield Breweries, Ltd., Melbourne-street, Mr. F. L. Charlton, architect, Bond-street :—

*L. Harpham, Ltd.

Leek.—156 houses, for the U.D.C. Mr. W. E. Beacham, surveyor :—

F. Perks & Son, Long Eaton £49,780
R. Quince & Sons, Sheffield 48,924
E. Johnson, Tunstall 48,494
Towers, Wilson & Co., Stourport ... 46,763
Sabin & Young, Walsall 46,745
Sims, Sons & Cook, Ltd., Nottingham 46,290
T. B. Cartlidge, Tunstall 45,720
M. J. Gleeson, Ltd., Sheffield 45,329
‡Harris Bros., Derby 45,015

Leigh-on-Sea.—Flats in Nelson-drive. Mr. O. H. Cockrill, A.R.I.B.A., architect :—

*Joscelyne Bros., Leigh-on-Sea.

Floors—
*Trussed Concrete Steel Co., Ltd., London.

Lichfield.—Ten houses at Springhill-road, Burntwood, for the R.D.C. Mr. A. E. Smith, engineer and surveyor :—

*C. Hall, 53, Chapel-street, Heath Hayes, near Cannock £2,695 15

Limerick.—Heating installation at the hospital, for the Mental Hospital Committee :—

*Hadens Engineering Co., Dublin.

Limerick.—Development work at Killalee housing scheme, for the T.C. :—

*G. B. Dillan £3,300

Liverpool.—Dairy, for the Liverpool Co-operative Society. Messrs. Ormrod & Banister, A./A.R.I.B.A., architects :—

*Liverpool Co-operative Society.
Reinforced concrete engineers—*Trussed Concrete Steel Co., Ltd., London, S.W.1.

Liverpool.—Control tower and first of two hangars at Speke Airport, for the T.C. :—

Building—
*Sir Lindsay Parkinson & Co., Blackpool £24,220

Steel construction—
*F. Morton & Co., Garston 20,090

Liverpool.—Married quarters, for the West Lancs Territorial Army Association. Mr. Gilbert Fraser, M.C., F.R.I.B.A., architect :—

*J. Lewis, Fairfield.

Reinforced concrete engineers—
*Trussed Concrete Steel Co., Ltd., London.

Liverpool.—Extensions to the Pioneer Laundry :—

Reinforced concrete engineers and contractors—
*Trussed Concrete Steel Co., Ltd., London.

Liverpool.—Road and sewer works on the Longview Farm estate, for the T.C. :—

*P. Balmer & Sons, Ltd., 199, Long-moor-lane, Liverpool, 9 ..... £65,000

Liverpool.—Road and sewer works on the Woolfall Heath estate and/or Woolfall Hall estate, for the T.C. :—

*J. McGeoch & Sons, Demesne-street, Wallasey £65,000

Liverpool.—Alterations, additions, etc., at the various hospitals and institutions, for the T.C. Land Steward and Surveyor :—

Cleaver Sanatorium, formation of quarters for a Resident Assistant Medical Officer—
*Brown & Backhouse, Liverpool £686

Mill-road Infirmary, formation of Nurses' Cubicles—
*Rimmer Bros. (Liverpool), Ltd., Liverpool 662

Smithdown-road Hospital, hacking out and cementing walls, Maternity Unit—
*Houghton & Jones, Ltd., Liverpool ... 425

Smithdown-road Hospital, Painting Maternity Unit—
*C. & G. L. Desoer, Ltd., Liverpool..... 167

Belmont-road Institution, two buildings for religious services—
*R. Wearing & Sons, Liverpool 4,398

Liverpool.—Work at Springwood recreation ground, for the T.C. Land Steward and Surveyor:—

Construction of bowls house, shelters and conveniences—
*Knight & Lord, 601, West Derby-road, Liverpool, 13 ..... £915 0 0

Supply and fixing of iron boundary railings and gates—
*Thomas Blackburn & Sons, Ltd., Preston Ironworks, Preston ... 557 16 6

Lochmaben.—18 houses in Princes-street, for the T.C.:—

Digger, brick, etc.—
*John G. Hope, Lockerbie £3,032 1 6
Carpenter, joiner and glazier—
*D. Kirkpatrick, Closeburn 1,586 3 6
Slater—
*T. M'Kinnon & Son, Lockerbie 498 18 0
Plumber—
*J. Waugh, Thornhill 718 11 9
Lath, plaster and roughcast—
*A. Hannay, Dumfries 714 6 0
Electric light—
*D. H. Little, Lochmaben 121 8 6
Painter—
*G. Adamson, Lockerbie 130 6 3
Fencing and gates—
*J. Graham & Sons, Millhouse-bridge, Lockerbie 158 14 2

London.—Rebuilding of West Kensington central boys' and girls' school, for the L.C.C.:—

F. R. Hipperson & Son, Ltd. ...	£38,161 0
Killby & Gayford, Ltd.	37,168 0
G. H. Denne & Son, Ltd.	36,225 0
Patman & Fotheringham, Ltd. ...	36,212 0
Holliday & Greenwood, Ltd.	35,897 0
J. & C. Bowyer, Ltd.	35,798 0
Wm. Walkerdine, Ltd.	35,597 14
A. E. Symes, Ltd.	35,517 0
J. Garrett & Son, Ltd.	35,120 0
G. E. Wallis & Sons, Ltd.	34,942 0
A. T. Rowley (London), Ltd. ...	34,890 0
G. Parker & Sons, Ltd.	34,595 0
W. H. Gaze & Sons, Ltd., Kingston	34,323 0
Galbraith Brothers, Ltd.	34,261 0
Rowley Brothers, Ltd.	34,120 0
*Albert Monk, Edmonton, N.19 ...	33,660 0
Architect's estimate	34,300 0

(All of London.)

London.—New nurses' home at Colney Hatch mental hospital, for the L.C.C.:—

		Empire materials.
Richard Ginn & Son, Hertford	£18,799	£18,799
John Ray, Ltd., Letchworth	18,642	18,824
W. Lawrence & Son, Ltd., Finsbury	18,538	No variation
G. H. Denne & Son, Ltd., Holborn	18,424	,,
W. Moss & Sons, Ltd., Loughborough	18,200	,,
Webster & Cannon, Aylesbury	17,598	,,
The Ashford Builders Co., Bloomsbury	17,540	,,
John Laing & Son, Ltd., Mill Hill	17,529	,,
Welwyn Builders, Ltd., Welwyn	17,510	,,
Albert Monk, Edmonton	17,160	,,
C. Miskin & Sons, Ltd., St. Albans	17,100	,,
Harry Neal, Ltd., Northwood	16,895	,,
Rowley Bros., Ltd., Tottenham	16,562	,,
Speirs, Ltd., Glasgow	16,337	,,
Thomas Bates & Son, Ltd., 57, Warwick-street, Coventry	15,804	*£15,807

(Architect's estimate on Empire materials: £17,420.)

London.—Repair and redecoration of the flats at Dron Buildings and Whitaker Buildings, for the City Corporation:—

Hewitt & Sewell, Ltd.	£533
Stapleton & Sons, Ltd.	475
F. J. Howard	416
*Falkus Bros., Ltd.	414

¶**London.**—The following works contracts have been placed by the War Office during the week ended March 7:—

Aldershot — periodical painting — S. Lupton & Sons, London, S.W.
Shoeburyness—shed—A. J. Harris & Son, Shoeburyness.
Catterick—periodical services—S. Lupton & Sons, London, S.W.
Redesdale—hut for officers' quarters—A. B. Cobbett, Monkseaton.

¶**London.**—Tenders accepted by H.M.O.W. for the week ended March 7:—

Woking Sorting Office—steel casements—G. Wragge, Ltd., 156, Chapel-street, Salford, Manchester, 3.
General Post Office, West—steelwork in connection with cinema hall—Dorman Long & Co., Ltd., Nine Elms Lane, S.W.8.
Rugby Post Office Garage — erection — W. W. Webster, Guildsborough.
Deptford Telephone Exchange — erection—G. H. Dibblin, Ltd., Albany Buildings, 47, Victoria-street, S.W.1.
East Acton Branch Post Office—alterations—Marchant, Hirst & Co., Highgate-road, Kentish Town, N.W.5.
Regent's Park — erection of lavatory building—G. H. Dibblin, Ltd., 47, Victoria-street, S.W.1.
H.M. Stationery Office—erection of constant temperature room and plant — Hall & Kay, Ltd., Stockport-road, Ashton-under-Lyne.
Kew and Hampton Court districts and London (Inner Area) district—removal of rubbish—H. Cox & Sons, Ltd., 49/51, Southampton St., Camberwell, S.E.5.
Redhill Station Sorting Office — reconstruction of floors—J. Crewdson, Horley.
Metal polish, liquid — Sunbeam Products, Ltd., Queen's-road, Battersea, S.W.8.
Skipton-road, Steeton (Yorks)—telephone exchange—erection—L. Mortimer, Victoria-road, Hebden Bridge.

Longford.—10 houses at Pig Green, for the U.D.C.:—

*J. Hearne, Longford £3,661 11

Lossiemouth.—Extensions to "Skerrybrae," Stotfield. Mr. Charles Doig, architect, Elgin.

*James Campbell & Son, Inverness.

Reinforced concrete engineers—
*Trussed Concrete Steel Co. Ltd., London.

Louth.—Water extension scheme at Blackrock, for the County Board of Health:—

Grainger Bros.	£989
E. P. Quirke	984
P. Mathews	980
*P. Cunningham	881

Mansfield.—52 houses on the Ravensdale estate, for the T.C.:—

*Direct Labour £14,770

Mansfield.—Extensions to the factory in Sutton-road and canteen to works, for Messrs. Seal & Turner, Ltd., Intake Hosiery Works. Messrs. Aubrey Lane & Sons, L.R.I.B.A., architects, Leeming-chambers, Leeming-street:—

*Blythe & Son, Mansfield.

Mickletown.—Alterations and additions to the Council school, for the West Riding E.C. Mr. Wormald, architect, County Hall (Education Dept.), Wakefield:— 3

*P. J. Parrott & Co

Middlesbrough.—New premises for Messrs. William Lane, West Marsh:—

*C. W. Chapman & Sons, Stockton-on-Tees.

Monmouth.—Carrying out the Llanishen water scheme, for the R.D.C.:—

‡Rolls Construction Co., Ltd. ... £1,359 0 11

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Navan.—36 houses at Gibney's Field, for the U.D.C.:—

*Nobber, Ltd., Navan £9,216

Neath.—30 houses, including roads and sewers, at Glyn Neath, for the R.D.C. Mr. John T. Jones, F.S.I., surveyor. Quantities by the surveyor:—

Osterland & Rees, Glynneath.....	£10,245 11 4
Wm. Humphreys, Glynneath	9,873 5 0
Lawford Gower & Sons, Briton Ferry	9,872 0 0
John Morgan, Neath	9,747 6 3
*Evan Thomas & Sons, Gas Works-road, Neath	9,583 18 6

Neath.—12 houses, including roads and sewers, at Cwmgwrach, near Neath, for the R.D.C. Mr. John T. Jones, F.S.I., surveyor:—

Lawford Gower & Sons, Briton Ferry ... £4,500
‡John Morgan, Bridge-yard, Commercial-street, Neath 3,826

Nenagh.—Works at new general hospital, for the Tipperary (N.R.) Board of Health:—

Heating installation, etc.—
*Messrs. Hadens, Dublin £6,500
Lighting and electric fittings—
*A. G. Bruty, Dublin 2,223

Newbiggin.—62 houses and 8 bungalows on the Woodhorn Demesne estate, for the U.D.C. Mr. J. Kailofer, surveyor:—

*H. Wardhaugh, Whitley Bay £16,712

Newcastle.—Reinforced concrete "mushroom" building at Pandon Dene, for the N.E. Electric Supply Co. Stores. Messrs. L. J. Couves & Partners, F./A.R.I.B.A., architects:—

General contractors—
*Elliott Bros.

Reinforced concrete engineers—
*Trussed Concrete Steel Co., Ltd., London.

Newcastle-on-Tyne.—Alterations and improvements to the premises of Messrs. J. Gledson & Sons, Blackett-street. Mr. J. N. Fatkin, architect, 77, Westgate-road, Newcastle:—

*J. R. Rutherford & Sons, Minories Joinery Works, Jesmond, Newcastle.

Newcastle-on-Tyne.—Alterations to the Arthur's Hill police station, for the T.C. City Architect:—

*S. Fenwick & Co., 46, Dunn-street, Newcastle £1,347

Northam.—10 houses, for the U.D.C.:—

*John L. Harris £2,920

Northampton.—Flats at Derngate. Sir John Brown & Mr. A. E. Henson, F./L.R.I.B.A., architects:—

Contractors—
*T. Wilson & Son, Ltd.

Floors—
*Trussed Concrete Steel Co., Ltd., London.

Norwich.—Flats in Ipswich-road. Mr. F. M. Dewing, architect, Point House, Aylsham-road:—

*R. G. Carter, Ltd., Drayton.

Floors——
*Trussed Concrete Steel Co., Ltd., London.

Nottingham.—Employees' Hostel, St. Anne's Hill. Messrs. Bromley Cartwright, architects, Waumsley:—

*G. A. Pillatt & Sons.

Concrete roof—
*Trussed Concrete Steel Co., Ltd., London.

¶**Pembroke.**—Reinforced concrete pier at Pembroke Dock, for H.M. Air Ministry:—

Christiani & Neilson, Ltd., Romney House, Marsham-street, S.W.

Pontesbury.—Four cottages and four sets of farm buildings near Pontesbury, for the Salop C.C. Mr. A. G. Chant, A.R.I.B.A., County Architect, Shrewsbury:—

*J. Bromley, Church Stretton £3,830

¶**Portsmouth.**—New hopper grab dredger, for H.M. Civil Engineer-in-Chief's Department, Admiralty:—

*Fleming & Ferguson, Phœnix-works, Paisley.

Prudhoe-on-Tyne.—Child welfare centre, for the Northumberland C.C. Mr. W. W. Tasker, County Architect, County Hall, Newcastle-on-Tyne:—

†G. Anderson, Prudhoe-on-Tyne.

Reading.—Reconstruction of the Factory Bridge, for the T.C.:—

*Aubrey Watson, Ltd., London, S.W.1 ..... £25,768 0 4

Scarborough.—Shelter in Peasholm-park, for the T.C.:—

*T. Wilcox & Sons £276

Seaham Harbour.—For (*a*) 76 houses and (*b*) 74 houses. Mr. J. B. Abbey, surveyor:—

(*a*) *W. Tomlin, Dene Croft, Lovelane, Seaham £18,540
(*b*) *E. Rutter & Sons, Front-street, Langley Park 17,839

Sileby.—Extensions to the boot and shoe factory, Brook-street, for Messrs. Newbold & Burton, Ltd., Union Works. Mr. E. W. Parkinson, L.R.I.B.A., architect, 20, Pocklington's-walk, Leicester:—

*J. E. Souter, Leicester.

Southgate. — Shop with flat over. Messrs. Marshall & Tweedy, FF.R.I.B.A., architects, 4, Cavendish-place, Cavendish-square, London, W.1 :—

Builders—
*Janes (Builders), Ltd., Slough.

Staincross.—Church and Sunday school, for the members of the Higham Methodist Church, Higham-lane. Mr. J. R. Wilkinson, architect, 15, Regent-street, Barnsley :—

*Royston, Builders, Barnsley.

Stockton-on-Tees.—Warehouse, for Messrs. Hardy & Co., High-street. Mr. J. N. Fatkin, architect and surveyor, 77, Westgate-road, Newcastle-on-Tyne :—

*J. C. Watson, Prudential-buildings, Stockton.

Stockton-on-Tees.—Erection of Newham Grange Senior school, for the E.C. Mr. G. P. Stainsby, architect, 25, High-street :—

*G. Dougill & Sons, Chestnut-street, Darlington.

Stoke-on-Trent.—Transforming the assembly room in the Town Hall into a banqueting hall, for the T.C. Mr. H. Goldstraw, A.R.I.B.A., architect, Town Hall-buildings, Tunstall :—

*A. Moss, Ltd., Stoke-on-Trent.
(Estimated cost: £6,000.)

Tunbridge Wells.—Reinforced concrete footbridge, for the T.C. Mr. Hugh P. Bishop, Borough Engineer :—

Reinforced concrete engineers—*Trussed Concrete Steel Co., Ltd.

Wakefield.—Additions to the Westgate and Ingsroad mills, for Messrs. M. P. Stonehouse & Co., Ltd. Messrs. Moore & Crabtree, architects, Piccadilly, Bradford :—

*Geo. Longden & Sons, Ltd.

Waldridge.—Alterations to latrines and the provision of a drain at the Waldridge-lane Council school, for the Durham C.C. :—

*J. W. White, Sunderland £1,265

Wallsend.—Extensions and improvements to the premises of Co-operative Laundries, Ltd. :—

*D. Glen, Back Queen's-road, Jarrow.

Walton-on-the-Naze.—Two police houses, for the Essex Police Stations Sub-Committee :—

*P. G. Oxley, Walton-on-the-Naze £935

Wardle.—New offices in Wardle-road, for the U.D.C. Messrs. Butterworth & Duncan, architects, 2, Baillie-street, Rochdale :—

†E. Taylor & Co., Ltd., Littleborough.
(Estimated cost £4,000.)

Waterford.—115 houses in Upper Yellow-road, for the Corporation :—

50—*R. B. Nolan, Waterford £15,560
65—*H. & A. Hamilton, Waterford 23,682

Wellington.—Children's home and public health clinic, for the Shropshire County Health Committee. Mr. A. G. Chant, A.R.I.B.A., County Architect, 5, Belmont, Shrewsbury :—

†Broome & Poole, Madeley £1,449 15

West Mersea.—Fire station in Melrose-road, for the U.D.C. Mr. E. F. Bressey, surveyor :—

R. T. Clarke, Colchester £198
May Bros., Langenhoe 195
*C. M. White & Co., West Mersea 160

Whiston.—Extensions of the medical superintendent's house at the Institution, for the Lancashire Public Assistance Committee. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, Preston :—

*J. Gaskell, Orrell, Wigan £560

Wincanton.—Eight houses at Bruton, for the R.D.C. :—

*T. S. Hobbs & Son, Ltd., Bruton.

Workington.—40 houses, on the Salterbeck site, and 60 houses on the Frostoms site, for the T.C. Mr. J. Penman, Borough Surveyor :—

Excavation, mason, brickwork, carpenter, joinery, roads and sewers—*T. Armstrong, Ltd., Cockermouth.
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Slater—*V. Pratt, Whitehaven.
Plaster—*Lovell Bros., Harrington.
Painter—*W. Wildridge, Workington.

Wycombe.—For the Downley housing scheme, for the R.D.C. :—

*S. Hickman & Son £4,498

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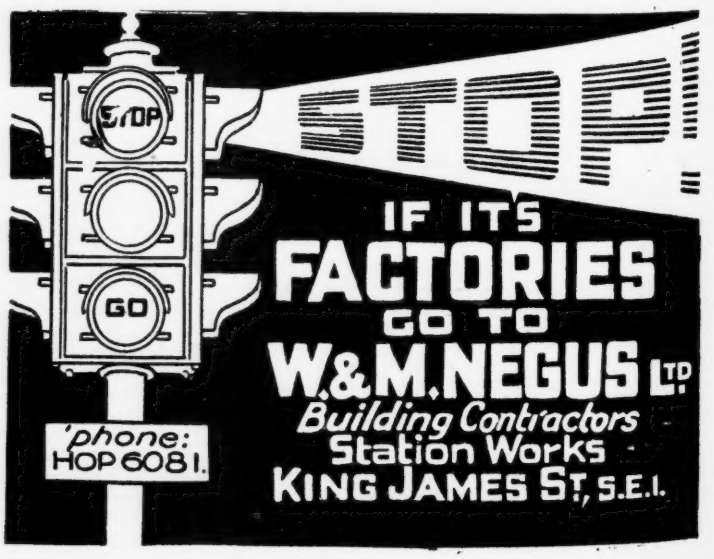
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